Theme: Numbers and Numeration (M-07-046) **CODE: B 1**	Theme: Numbers and Numeration (M-07-046) **CODE: B 1**
Lesson Title: Introduction to ratio	Lesson Title: Introduction to ratio
What does the term '**ratio**' mean? 1½ minutes	Answer: A **ratio** compares two quantities of the same kind (for example, people, cups, kilometres, etc).
Theme: Numbers and Numeration (M-07-046) **CODE: B 2**	Theme: Numbers and Numeration (M-07-046) **CODE: B 2**
Lesson Title: Introduction to ratio	Lesson Title: Introduction to ratio
Amadu has 5 pencils and 3 markers. Write down: i. The ratio of pencils to markers in three forms. ii. The ratio of markers to pencils in three forms. 4 minutes	Answer: (i) 5 is to 3, 5:3, for every 5 pencils we have 3 markers. (ii) 3 is to 5, 3:5, for every 3 markers we have 5 pencils.
Theme: Numbers and Numeration (M-07-047) **CODE: B 3**	Theme: Numbers and Numeration (M-07-047) **CODE: B 3**
Lesson Title: Ratio of the Whole	Lesson Title: Ratio of the Whole
A farmer has 50 animals on his farm. These include 15 chickens, 17 goats, 10 cows and the rest are sheep. Write: i. The ratio of sheep to cows to goats to chickens ii. The ratio of goats to sheep to cows to chickens iii. The ratio of chickens to all animals iv. The ratio of sheep to all animals 4 minutes	Answer: i. 8:10:17:15 ii. 17:8:10:15 iii. 15:50, iv. 8:50
Theme: Numbers and Numeration (M-07-048) **CODE: B 4**	Theme: Numbers and Numeration (M-07-048) **CODE: B 4**
Lesson Title: Ratios and Fraction	Lesson Title: Ratios and Fraction
a. A class has 35 pupils of which there are 15 boys and 20 girls. Write the ratio of boys to girls as fraction in its lowest term. b. Mr. Bundu has 48 animals on his farm. 18 are goats and the rest are cows. Write the ratio of goats to cows as a fraction in its simplest form. 3 minutes	Answer: (a) $\frac{15\ \text{boys}}{20\ \text{girls}} = \frac{3}{4}$ (b) $\frac{18\ \text{goats}}{30\ \text{cows}} = \frac{3}{5}$

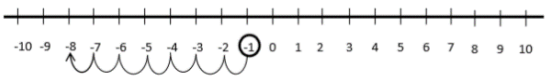
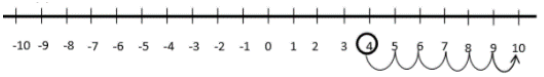
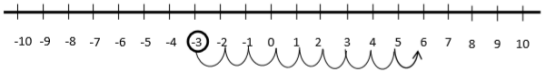
Theme: Numbers and Numeration (M-07-049) **CODE: B 5**	Theme: Numbers and Numeration (M-07-049) **CODE: B 5**
Lesson Title: Ratio and percent	Lesson Title: Ratio and percent
What does the term **'percent'** mean? 1½ minutes	Answer: **Percent** means out of a total of 100.
Theme: Numbers and Numeration (M-07-049) **CODE: B 6**	Theme: Numbers and Numeration (M-07-049) **CODE: B 6**
Lesson Title: Ratio and percent	Lesson Title: Ratio and percent
a. Express these percent as ratios: i. 35% ii. 90% iii. 50% b. Express these ratios as percent: i. 3:25 ii. 9:20 4 minutes	Answer; a. i. 35:100 ii. 90:100 iii. 50:100 b. i. $\frac{3}{25}$ ×100 = 12% ii. $\frac{9}{20}$ ×100 = 45%
Theme: Numbers and Numeration (M-07-050) **CODE: B 7**	Theme: Numbers and Numeration (M-07-050) **CODE: B7**
Lesson Title: Ratio and decimal	Lesson Title: Ratio and decimal
a. Express 400 cm: 1000 cm. as a fraction, decimal, and percentage. b. Express 45 minutes: 180 minutes as a fraction, decimal, and percentage. 3 minutes	Answer: a. $\frac{400cm}{1000cm} = \frac{2}{5}$ = 0.4 = 40% b. $\frac{45\ min}{180\ min} = \frac{1}{4}$ = 0.25 = 25%
Theme: Numbers and Numeration (M-07-051) **CODE: B8**	Theme: Numbers and Numeration (M-07-051) **CODE: B 8**
Lesson Title: Simplification of ratios	Lesson Title: Simplification of ratios
What do we multiply by 4 to get 8? 2 minutes	Answer: We multiply by 2.

Theme: Numbers and Numeration (M-07-051) **CODE: B 9**	Theme: Numbers and Numeration (M-07-051) **CODE: B 9**
Lesson Title: Simplification of ratios	Lesson Title: Simplification of ratios
a. Reduce 60:180 to its lowest terms. b. Find the missing number: 13:15 = 26:☐ c. Find the missing number: ☐:12 = 3:4 3 minutes	Answer: a. 60:180 = 1:3 b. 30 c. 9
Theme: Numbers and Numeration (M-07-052) **CODE: B 10**	Theme: Numbers and Numeration (M-07-052) **CODE: B 10**
Lesson Title: Ratio problems with two terms	Lesson Title: Ratio problems with two terms
Share 120 sweets between Sia and Mariama in the ratio 7:5 2 minutes	Answer: Sia's share = $\frac{7}{12}$×120 = 70 sweets Mariama's share = $\frac{5}{12}$×120 = 50 sweets
Theme: Numbers and Numeration (M-07-052) **CODE: B 11**	Theme: Numbers and Numeration (M-07-052) **CODE: B 11**
Lesson Title: Ratio problems with two terms	Lesson Title: Ratio problems with two terms
a. Share 64 bananas between Christiana and Princess in the ratio 5:3 b. Divide Le250,000 between John and Thomas in the ratio 2:8 4 minutes	Answer: (a.) Christiana's share = $\frac{5}{8}$ ×64 = 40 bananas; Princess' share = $\frac{3}{8}$ ×64 = 24 bananas. (b.) John's share = $\frac{2}{10}$×250,000 = Le50,000 Thomas' share = $\frac{8}{10}$×250,000 = Le200,000
Theme: Numbers and Numeration (M-07-053) **CODE: B 12**	Theme: Numbers and Numeration (M-07-053) **CODE: B 12**
Lesson Title: Ratio problems with three or more terms	Lesson Title: Ratio problems with three or more terms
3 sisters divided 30 pineapples between them in the ratio 3:1:2. Find the total ratio 2 minutes	Answer: 3 + 1 + 2 = 6

Theme: Numbers and Numeration (M-07-053) **CODE: B 13**	Theme: Numbers and Numeration (M-07-053) **CODE: B 13**
Lesson Title: Ratio problems with three or more terms	Lesson Title: Ratio problems with three or more terms
Share Le 60,000 among four girls: Isata, M'balu, Fatu and Hawa in the ratio 4:1:2:5. How much is each girls' share? 4 minutes	Answer: Isata's share = $\frac{4}{12}\times Le60{,}000$ = $Le20{,}000$ M'balu's share = $\frac{1}{12}\times Le60{,}000$ = $Le5000$ Fatu's share = $\frac{2}{12}\times Le60{,}000$ = $Le10{,}000$ Hawa's share = $\frac{5}{12}\times Le60{,}000$ =$Le25{,}000$
Theme: Numbers and Numeration (M-07-054) **CODE: B 14**	Theme: Numbers and Numeration (M-07-054) **CODE: B 14**
Lesson Title: Relating ratios to measurement	Lesson Title: Relating ratios to measurement
Explain what the **total ratio** means in sharing a given quantity in a given ratio. 2 minutes	Answer: The **total ratio** tells us into how many parts the quantity to be shared has been divided.
Theme: Numbers and Numeration (M-07-054) **CODE: B 15**	Theme: Numbers and Numeration (M-07-054) **CODE: B 15**
Lesson Title: Relating ratios to measurement	Lesson Title: Relating ratios to measurement
a. Mr. Leigh's study table is in the shape of a rectangle of width 80cm and length 100cm. Calculate the ratio of the width to the length in its simplest form. b. Divide a line of 20 cm in the ratio 3:2:5 3½ minutes	Answer: (a) 80cm : 100cm = 4:5 (b) first portion: $\frac{3}{10}\times 20\text{cm} = 6\text{cm}$ second portion: $\frac{2}{10}\times 20\text{cm} = 4\text{cm}$ third portion: $\frac{5}{20}\times 20\text{cm} = 10\text{cm}$
Theme: Numbers and Numeration (M-07-055) **CODE: B 16**	Theme: Numbers and Numeration (M-07-055) **CODE: B 16**
Lesson Title: Ratio story problems	Lesson Title: Ratio story problems
The ages of three girls Mabel, Alice and Finda are 12, 15 and 11 respectively. Mr. Kamara wants to share 76 exercise books among them in the ratio of their ages. Find how many exercise books each girl will get. 4 minutes	Answer: 12 +15 + 11 = 38 Mabel's share: $\frac{12}{38}$x76 = 24 exercise books Alice's share: $\frac{15}{38}$ x76 = 30 exercise books Finda's share: $\frac{11}{38}$x76 = 22 exercise books

Theme: Numbers and Numeration (M-07-056) **CODE: B 17**	Theme: Numbers and Numeration (M-07-056) **CODE: B 17**
Lesson Title: Introduction to integers	Lesson Title: Introduction to integers
Complete the following sentence: All numbers greater than zero are_____, and all numbers less than zero are_____ 2 minutes	Answer: All numbers greater than zero are **positive numbers**, and all numbers less than zero are **negative numbers**.
Theme: Numbers and Numeration (M-07-056) **CODE: B 18**	Theme: Numbers and Numeration (M-07-056) **CODE: B 18**
Lesson Title: Introduction to integers	Lesson Title: Introduction to integers
Determine whether each number is positive or negative: (a) +7 (b) -12 (c) -6 (d) 14 (e) 0 2 minutes	Answer: (a) positive (b) negative (c) negative (d) positive (e) neither positive nor negative
Theme: Numbers and Numeration (M-07-057) **CODE: B 19**	Theme: Numbers and Numeration (M-07-057) **CODE: B 19**
Lesson Title: Positive and negative integers	Lesson Title: Positive and negative integers
In which direction do we find positive integers from zero? 1½ minutes	Answer: The right.
Theme: Numbers and Numeration (M-07-057) **CODE: B 20**	Theme: Numbers and Numeration (M-07-057) **CODE: B 20**
Lesson Title: Positive and negative integers	Lesson Title: Positive and negative integers
\In which direction do we find the negative integers from zero? 1½ minutes	Answer: The left.

Theme: Numbers and Numeration (M-07-057) **CODE: B 21**	Theme: Numbers and Numeration (M-07-057) **CODE: B 21**
Lesson Title: Positive and negative integers	Lesson Title: Positive and negative integers
Is zero a positive or a negative integer? 1½ minutes	Answer: It is neither a positive nor a negative integer.
Theme: Numbers and Numeration (M-07-057) **CODE: B 22**	Theme: Numbers and Numeration (M-07-057) **CODE: B 22**
Lesson Title: Positive and negative integers	Lesson Title: Positive and negative integers
a. Write down the symbol for '**greater than'**. b. Write down the symbol for '**less than'**. 1½ minutes	Answer: a. The symbol for 'greater than' is: **>** b. The symbol for 'less than' is: **<**
Theme: Numbers and Numeration (M-07-057) **CODE: B 23**	Theme: Numbers and Numeration (M-07-057) **CODE: B 23**
Lesson Title: Positive and negative integers	Lesson Title: Positive and negative integers
Complete the following sentence: Numbers to the right on a number line are bigger than numbers to the _____. 1½ minutes	Answer: Numbers to the right on a number line are bigger than numbers to the **left**.
Theme: Numbers and Numeration (M-07-057) **CODE: B 24**	Theme: Numbers and Numeration (M-07-057) **CODE: B 24**
Lesson Title: Positive and negative integers	Lesson Title: Positive and negative integers
Explain why -10 is less than +10, even though both numbers are the same distance from 0. 2 minutes	Answer: All negative numbers are less than positive numbers; -10 is to the left of +10 on the number line

Theme: Numbers and Numeration (M-07-057) **CODE: B 25**	Theme: Numbers and Numeration (M-07-057) **CODE: B 25**
Lesson Title: Positive and negative integers	Lesson Title: Positive and negative integers
a. List these integers in order from greatest to least: -9, 8, 15, -8, -1, 9 b. Use < or > to compare each pair of integers: (i) -30 and 8 (ii) -3 and -12 3 minutes	Answer: (a) 15, 9, 8, -1, -9, -8 (b) (i) −30 < 8, (ii) −3 > −12
Theme: Numbers and Numeration (M-07-059) **CODE: B 26**	Theme: Numbers and Numeration (M-07-059) **CODE: B 26**
Lesson Title: Addition of integers using a number line	Lesson Title: Addition of integers using a number line
Draw a number line and solve: (a) −1−7 (b) 4+6 (c) −3+9 4 minutes	Answer: (a) -1 – 7 = -8; (b) 4 + 6 = 10; (c) -3 + 9 = 6; (a)  (b)  (c) 
Theme: Numbers and Numeration (M-07-060) **CODE: B 27**	Theme: Numbers and Numeration (M-07-060) **CODE: B 27**
Lesson Title: Addition of integers	Lesson Title: Addition of integers
What is 7 plus 4? 1½ minutes	Answer: 7 plus 4 = 11
Theme: Numbers and Numeration (M-07-060) **CODE: B 28**	Theme: Numbers and Numeration (M-07-060) **CODE: B 28**
Lesson Title: Addition of integers	Lesson Title: Addition of integers
Complete the following: (a.) (−) + (−) = ☐ (b.) (+) + (+) = ☐ (c.) (+) + (−) = ☐ 2½ minutes	Answer: (a.) – (b.) + (c.) + or –

Theme: Numbers and Numeration (M-07-060) **CODE: B 29**	Theme: Numbers and Numeration (M-07-060) **CODE: B 29**
Lesson Title: Addition of integers	Lesson Title: Addition of integers
Complete the following: (a) (-5) + (-12) (b) (+17) + (-24) (c) (-31) + (+15) 4 minutes	Answer: (a) (-5) + (-12) = -17 (b) (+17) + (-24) = 17 – 24 = -7 (c) (-31) + (+15) = -16
Theme: Numbers and Numeration (M-07-061) **CODE: B 30**	Theme: Numbers and Numeration (M-07-061) **CODE: B30**
Lesson Title: Subtraction of integers	Lesson Title: Subtraction of integers
Solve the following: (a) -3 – (-3) = (b) +3 – (+3) = (c) +3 – (-3) = 2 minutes	Answer: (a) –3 + 3 = 0 (b) +3 – 3 = 0 (c) +3 + 3 = 6
Theme: Numbers and Numeration (M-07-061) **CODE: B 31**	Theme: Numbers and Numeration (M-07-061) **CODE: B 31**
Lesson Title: Subtraction of integers	Lesson Title: Subtraction of integers
Simplify the following: (a) -6 – (-9) (b) 8 – (+12) (c) 3 – (-8) 4 minutes	Answer: (a) -6 – (-9) = -6 + 9 = 3 (b) 8 – (+12) = 8 – 12 = -4 (c) 3 – (-8) = 3 + 8 = 11
Theme: Numbers and Numeration (M-07-062) **CODE: B 32**	Theme: Numbers and Numeration (M-07-062) **CODE: B 32**
Lesson Title: Multiplication of numbers using number line	Lesson Title: Multiplication of numbers using number line
Complete the following: (a) – x - = □ (b) + x - = □ (c) + x + = □ 2 minutes	Answer: (a) + (b) – (c) +

Theme: Numbers and Numeration (M-07-062)	**CODE: B 33**
Lesson Title: Multiplication of numbers using number line	
Solve the following: (a) 2 x 3 (b) 2 x (-3) (c) (-2) x (-3) 2½ minutes	Answer: (a) 2 x 3 = 6 (b) 2 x (-3) = -6 (c) (-2) x (-3) = 6

Theme: Numbers and Numeration (M-07-063)	**CODE: B 34**
Lesson Title: Multiplication of integers	
Complete the following: positive x positive = _____ negative x negative = _____ positive x negative = _____ negative x positive = _____ 2½ minutes	Answer: positive x positive = positive negative x negative = positive positive x negative = negative negative x positive = negative

Theme: Numbers and Numeration (M-07-063)	**CODE: B 35**
Lesson Title: Multiplication of integers	
Simplify the following: (a) (-4) × (+3) (b) (-100) × (-3) (c) (+92) × (-3) 2½ minutes	Answer: (a) -12 (b) 300 (c) -276

Theme: Everyday Arithmetic (M-07-064)	**CODE: B 36**
Lesson Title: Division of integers	
Complete the following: a. positive ÷ positive = _____ b. negative ÷ negative = _____ 1½ minutes	Answer: a. positive ÷ positive = **positive** b. negative ÷ negative = **negative**

Theme: Everyday Arithmetic (M-07-064)	CODE: B 37
Lesson Title: Division of integers	
Simplify the following: a) (+28) ÷ (+4) b) (-49) ÷ 7 c) (-1500) ÷ (-10) d) (+550) ÷ (-11) 4 minutes	

Theme: Everyday Arithmetic (M-07-064)	CODE: B 37
Lesson Title: Division of integers	
Answer: (a) 7; (b) -7 (c) 150 (d) -50	

Theme: Everyday Arithmetic (M-07-065)	CODE: B 38
Lesson Title: Story problems on integers	
What should we do in this problem? James has 28 mangos. If Mary has 10 mangos more than James, how many mangoes does Mary have? 2 minutes	

Theme: Everyday Arithmetic (M-07-065)	CODE: B 38
Lesson Title: Story problems on integers	
Answer: We should add. We know this because of the word 'more'. 28 + 10 = 38 mangoes	

Theme: Everyday Arithmetic (M-07-065)	CODE: B 39
Lesson Title: Story problems on integers	
What should we do in this problem? Tommy has 20 coins. If his brother has 4 fewer coins, how many coins does the brother have? 2 minutes	

Theme: Everyday Arithmetic (M-07-065)	CODE: B 39
Lesson Title: Story problems on integers	
Answer: We should subtract. We know this because of the word 'fewer'. 20 – 4 = 16 coins	

Theme: Everyday Arithmetic (M-07-065)	CODE: B 40
Lesson Title: Story problems on integers	
a. A bird is flying 8m. above the sea and a fish is directly below the bird. If the fish is −12m. under the sea, what is the distance between the bird and fish? b. The air temperature is 28°C and a box of frozen fish is -3°C. What is the difference in temperature between the air and the frozen fish? 4 minutes	

Theme: Everyday Arithmetic (M-07-065)	CODE: B 40
Lesson Title: Story problems on integers	
Answer: (a) 8m− (−12m) = 8m +12m = 20 m (b) 28°C−(−3°C) = 28°C+3°C = 31°C	

Theme: Everyday Arithmetic (M-07-066) **CODE: B 41**	Theme: Everyday Arithmetic (M-07-066) **CODE: B 41**
Lesson Title: Simple proportion	Lesson Title: Simple proportion
What do you understand by the term '**proportion'**. 1½ minutes	Answer: A **proportion** is just two ratios that are equivalent or equal.
Theme: Everyday Arithmetic (M-07-066) **CODE: B 42**	Theme: Everyday Arithmetic (M-07-066) **CODE: B 42**
Lesson Title: Simple proportion	Lesson Title: Simple proportion
What type of fractions are these: $\frac{1}{2} = \frac{5}{10}$ 1½ minutes	Answer: Equivalent fractions
Theme: Everyday Arithmetic (M-07-066) **CODE: B 43**	Theme: Everyday Arithmetic (M-07-066) **CODE: B 43**
Lesson Title: Simple proportion	Lesson Title: Simple proportion
Jane ran 9 meters in 5 seconds. a. How long will she take to run 27 meters? b. How many meters will she cover in 10 seconds? 4 minutes	Answer: a. $\frac{9}{5} = \frac{27}{y} \rightarrow y = \frac{27 \times 5}{9} = 15$ seconds b. $\frac{9}{5} = \frac{m}{10} \rightarrow m = \frac{9 \times 10}{5} = 18$ meters
Theme: Everyday Arithmetic (M-07-067) **CODE: B 44**	Theme: Everyday Arithmetic (M-07-067) **CODE: B 44**
Lesson Title: Simple interest	Lesson Title: Simple interest
a. Express 5% as a fraction in its lowest term. b. What is 2% of 500? 2 minutes	Answer: (a) $5\% = \frac{5}{100} = \frac{1}{20}$ $(b)\ \frac{2}{100} \times 500 = \frac{1000}{100} = 10$

Theme: Everyday Arithmetic (M-07-067)	**CODE: B 45**
Lesson Title: Simple interest	
What do you understand by the term '**principal**'? 1½ minutes	

Theme: Everyday Arithmetic (M-07-067)	**CODE: B 45**
Lesson Title: Simple interest	
Answer: **Principal** is the amount of money borrowed, lent or invested.	

Theme: Everyday Arithmetic (M-07-067)	**CODE: B 46**
Lesson Title: Simple interest	
Write down the symbols of the following words: a. Simple Interest b. Principal c. Rate d. Time (in years) e. Discount f. Commission 2 minutes	

Theme: Everyday Arithmetic (M-07-067)	**CODE: B 46**
Lesson Title: Simple interest	
Answer: a. I b. P c. R d. T e. D f. C	

Theme: Everyday Arithmetic (M-07-067)	**CODE: B 47**
Lesson Title: Simple interest	
What formula do we use to calculate the **simple interest**. 1½ minutes	

Theme: Everyday Arithmetic (M-07-067)	**CODE: B 47**
Lesson Title: Simple interest	
Answer: **I = P x R x T**	

Theme: Everyday Arithmetic (M-07-067)	**CODE: B 48**
Lesson Title: Simple interest	
a. What is the interest paid on Le2500 borrowed for 3 years at a rate of 5% per annum? b. Mary invested Le22,500 for 4 years at a rate of 7% per annum. What interest did she earn? 4 minutes	

Theme: Everyday Arithmetic (M-07-067)	**CODE: B 48**
Lesson Title: Simple interest	
Answer: a. I = 2500 x $\frac{5}{100}$ x 3 = Le375 b. I = 22,500 x $\frac{7}{100}$ x 4 = Le6,300	

Theme: Everyday Arithmetic (M-07-068)	**CODE: B 49**
Lesson Title: Discount	
What formula do we use to calculate **discount**? 1½ minutes	

Theme: Everyday Arithmetic (M-07-068)	**CODE: B 49**
Lesson Title: Discount	
Answer: D = R x original price (Discount = Rate x original price)	

Theme: Everyday Arithmetic (M-07-068)	**CODE: B 50**
Lesson Title: Discount	
a. Find the sale price for an item that has a price tag of Le100 and a discount rate of 25%. b. A baker has a coupon that reads, 'Get $\frac{1}{3}$ off Le900 bread.' What is the discount? What is the sale price of the bread? 3½ minutes	

Theme: Everyday Arithmetic (M-07-068)	**CODE: B 50**
Lesson Title: Discount	
Answer: a. $D = \frac{25}{100} \times 100 = Le25$ Sale price = 100−25 = $Le75$ b. $D = \frac{1}{3} \times 900 = Le300$ The sale price of bread is 900−300 = $Le600$	

Theme: Everyday Arithmetic (M-07-069)	**CODE: B 51**
Lesson Title: Commission	
What do you understand by the term '**commission**'? 1½ minutes	

Theme: Everyday Arithmetic (M-07-069)	**CODE: B 51**
Lesson Title: Commission	
Answer: **Commission** is an amount of money that someone receives when they sell something.	

Theme: Everyday Arithmetic (M-07-069)	**CODE: B 52**
Lesson Title: Commission	
What formula do we use to calculate commission? 1½ minutes	

Theme: Everyday Arithmetic (M-07-069)	**CODE: B 52**
Lesson Title: Commission	
Answer: commission = selling price x rate of commission	

Theme: Everyday Arithmetic (M-07-069)	**CODE: B 53**
Lesson Title: Commission	
Abass works as a salesperson in a jewellery shop. He is paid on 5% commission on his sales. One very busy day he made the following four sales: a ladies' watch for Le200,000, a diamond necklace for Le500,000, a pair of cufflinks for Le120,000 and a gold bracelet for Le300,000. What was Abass' commission on his total sales? 3½ minutes	

Theme: Everyday Arithmetic (M-07-069)	**CODE: B 53**
Lesson Title: Commission	
Answer: Total sales = 200,000+500,000+120,000+300,000 = Le1,120,000 Commission= $\frac{5}{100}$×1,120,000 = $\frac{5,600,000}{100}$ = Le 56,000	

Theme: Everyday Arithmetic (M-07-070)	**CODE: B 54**
Lesson Title: Tax	
Define the term '**taxes'**. 1½ minutes	

Theme: Everyday Arithmetic (M-07-070)	**CODE: B 54**
Lesson Title: Tax	
Answer: **Taxes** are how a government raises money to cover public costs.	

Theme: Everyday Arithmetic (M-07-070)	**CODE: B 55**
Lesson Title: Tax	
What formula do we use to calculate sales tax? 1½ minutes	

Theme: Everyday Arithmetic (M-07-070)	**CODE: B 55**
Lesson Title: Tax	
Answer: Sales tax = the cost of the item x tax rate.	

Theme: Everyday Arithmetic (M-07-070)	**CODE: B 56**
Lesson Title: Tax	
a. Joe is buying shoes at a boutique, where the sales tax is 3%. The shoes cost Le30, 000. How much is the tax? b. Moses buys a house for Le4, 000,000 and pays a tax of 6%. What is the total cost of the house? 3½ minutes	

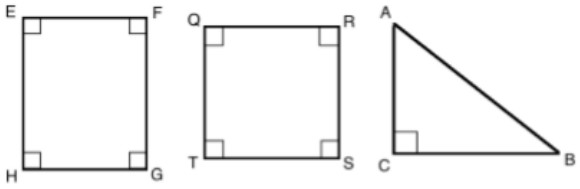
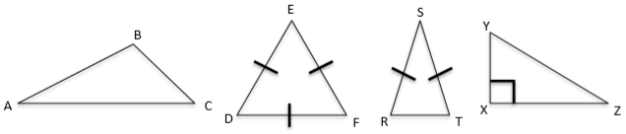
Theme: Everyday Arithmetic (M-07-070)	**CODE: B 56**
Lesson Title: Tax	
Answer: a. tax = $\frac{3}{100}$ ×30,000 =Le900. b. tax = $\frac{6}{100}$ ×4,000,000 = Le240,000 The total cost of the house is 4,000,000+ 240,000 = Le4,240,000	

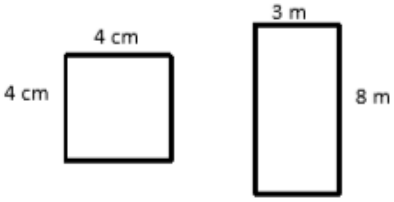
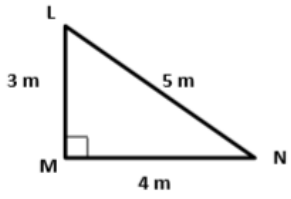
Theme: Measurement and Estimation (M-07-071) **CODE: B 57**	Theme: Measurement and Estimation (M-07-071) **CODE: B 57**
Lesson Title: Units of measurements	Lesson Title: Units of measurements
When might we need to measure **volume**? 1½ minutes	Answer: When buying petrol, buying or selling water for example.
Theme: Measurement and Estimation (M-07-071) **CODE: B 58**	Theme: Measurement and Estimation (M-07-071) **CODE: B 58**
Lesson Title: Units of measurements	Lesson Title: Units of measurements
When might we need to measure **mass**, or **weight**? 1½ minutes	Answer: To measure our own body mass, the mass of rice, the mass of gold being mined for example.
Theme: Measurement and Estimation (M-07-071) **CODE: B 59**	Theme: Measurement and Estimation (M-07-071) **CODE: B 59**
Lesson Title: Units of measurements	Lesson Title: Units of measurements
Think of an example of a unit used to measure length. 1 minute	Answer: Centimetres, kilometres, feet, miles for example.
Theme: Measurement and Estimation (M-07-071) **CODE: B 60**	Theme: Measurement and Estimation (M-07-071) **CODE: B 60**
Lesson Title: Units of measurements	Lesson Title: Units of measurements
What is **mass**? 1½ minutes	Answer: Mass is the quantity of matter an object contains. It is related to the weight of the object.

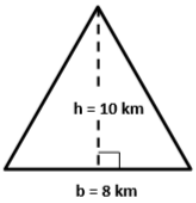
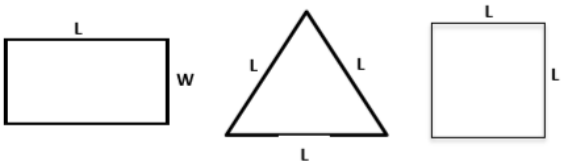
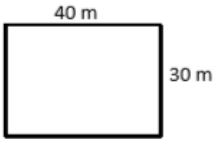
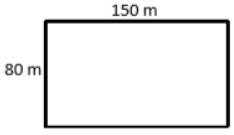
Theme: Measurement and Estimation (M-07-071) **CODE: B 61**	Theme: Measurement and Estimation (M-07-071) **CODE: B 61**
Lesson Title: Units of measurements	Lesson Title: Units of measurements
What is **volume**? 1½ minutes	Answer: Volume is the capacity or space a substance occupies. We measure liquids in volume.
Theme: Measurement and Estimation (M-07-071) **CODE: B 62**	Theme: Measurement and Estimation (M-07-071) **CODE: B 62**
Lesson Title: Units of measurements	Lesson Title: Units of measurements
(i) List 3 items whose length can be measured. (ii) List 3 items whose mass can be measured. (iii) List 3 items whose volume can be measured. 3 minutes	Answer: (i) Length – road, a person's height, football field (ii) Mass – bag of rice, humans, gold (iii) Volume – water, kerosene, petrol
Theme: Measurement and Estimation (M-07-072) **CODE: B 63**	Theme: Measurement and Estimation (M-07-072) **CODE: B 63**
Lesson Title: Conversion of length	Lesson Title: Conversion of length
a. Which is longer: 1 metre or 1 kilometre? b. Which is longer: 1 centimetre or 1 metre? 1½ minutes	Answer: a. 1 kilometre b. 1 metre
Theme: Measurement and Estimation (M-07-071) **CODE: B 64**	Theme: Measurement and Estimation (M-07-071) **CODE: B 64**
Lesson Title: Units of measurements	Lesson Title: Units of measurements
(i) Name 2 units for measuring lengths (ii) Name 2 units for measuring mass (iii) Name 2 units for measuring volume 2 minutes	Answer: (i) metres, centimetres, kilometres, inches, yards (ii) gram, kilogramme, pound (iii) millilitres, litres

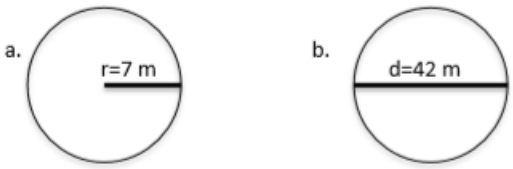
Theme: Measurement and Estimation (M-07-072) **CODE: B 65**	Theme: Measurement and Estimation (M-07-072) **CODE: B 65**
Lesson Title: Conversion of length	Lesson Title: Conversion of length
a. Change 8243 mm to metres. Round your answer to one decimal place. b. Add 703cm, 956cm and 168cm. Then, express your answer in metres. 3½ minutes	Answer: a. 8243mm = 8243÷1000m = 8.243m → 8.2 m b. 703+956+168 = 1827cm → 1827cm = 1827÷100m = 18.27m
Theme: Measurement and Estimation (M-07-073) **CODE: B 66**	Theme: Measurement and Estimation (M-07-073) **CODE: B 66**
Lesson Title: Conversion of mass	Lesson Title: Conversion of mass
a. How many millimetres in 1 centimetre? b. What is 1km in metres? c. How many centimetres in a metre? 2 minutes	Answer: a. 10mm b. 1000m c. 100cm
Theme: Measurement and Estimation (M-07-073) **CODE: B 67**	Theme: Measurement and Estimation (M-07-073) **CODE: B 67**
Lesson Title: Conversion of mass	Lesson Title: Conversion of mass
a. Which is bigger: 1 gram or 1 kilogram? b. Which is smaller: 1 tonne or 1 milligram? 1½ minutes	Answer: a. 1 kilogram b. 1 milligram
Theme: Measurement and Estimation (M-07-073) **CODE: B 68**	Theme: Measurement and Estimation (M-07-073) **CODE: B 68**
Lesson Title: Conversion of mass	Lesson Title: Conversion of mass
a. Change 6215mg to grams. Round your answer to 2 decimal places. b. Add 574g, 603g, and 128g. Give your answer in kilograms. 3 minutes	Answer: a. 6215mg = 6215÷1000g = 6.215g → 6.22 g b. 574+603+128 = 1305g → 1305g = 1305÷1000kg = 1.305kg

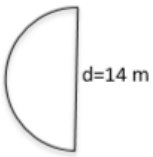
Theme: Measurement and Estimation (M-07-074) **CODE: B 69**	Theme: Measurement and Estimation (M-07-074) **CODE: B 69**
Lesson Title: Conversion of volume	Lesson Title: Conversion of volume
Which is bigger: 1 litre or 1 millilitre? 1½ minutes	Answer: 1 litre
Theme: Measurement and Estimation (M-07-074) **CODE: B 70**	Theme: Measurement and Estimation (M-07-074) **CODE: B 70**
Lesson Title: Conversion of volume	Lesson Title: Conversion of volume
What are some things we measure with litres? 1½ minutes	Answer Petrol, kerosene, water
Theme: Measurement and Estimation (M-07-074) **CODE: B 71**	Theme: Measurement and Estimation (M-07-074) **CODE: B 71**
Lesson Title: Conversion of volume	Lesson Title: Conversion of volume
a. Change 419 decilitres to litres. b. Add 34ml, 1,240ml, and 829ml. Give your answer in litres. Round to the nearest litre. 3 minutes	Answer: a. 419dl = 419÷10l = 41.9l b. 34+1240+829 = 2103ml → 2103ml = 2103÷1000l = 2.103l → 2 litres
Theme: Measurement and Estimation (M-07-075) **CODE: B 72**	Theme: Measurement and Estimation (M-07-075) **CODE: B 72**
Lesson Title: Review of plane shapes	Lesson Title: Review of plane shapes
1. Why are squares and rectangle called quadrilaterals? 2. How many sides does a triangle have? 3. Name 4 types of triangles. 3½ minutes	Answer: 1. They have 4 sides each 2. 3 sides 3. Equilateral, Scalene, Isosceles, Right-angled

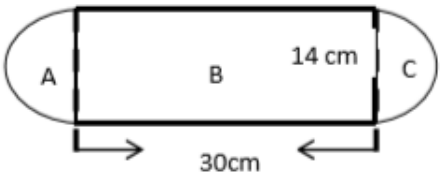
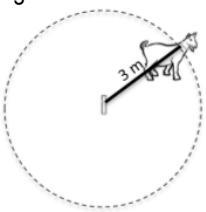
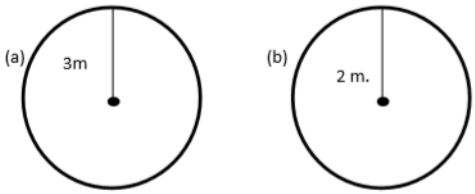
Theme: Measurement and Estimation (M-07-075) **CODE: B 73**	Theme: Measurement and Estimation (M-07-075) **CODE: B 73**
Lesson Title: Review of plane shapes	Lesson Title: Review of plane shapes
Draw the following shapes: Rectangle EFGH, Square QRST, and Triangle ABC. 3½ minutes	Answer: 
Theme: Measurement and Estimation (M-07-075) **CODE: B 74**	Theme: Measurement and Estimation (M-07-075) **CODE: B 74**
Lesson Title: Review of plane shapes	Lesson Title: Review of plane shapes
Draw the following shapes: a scalene triangle ABC, an equilateral triangle DEF, an isosceles triangle RST, and a right-angled triangle XYZ. 4 minutes	Answer: 
Theme: Measurement and Estimation (M-07-077) **CODE: B 75**	Theme: Measurement and Estimation (M-07-077) **CODE: B 75**
Lesson Title: Area of rectangles and squares	Lesson Title: Area of rectangles and squares
What is area? 1½ minutes	Answer: Area is the size of the space inside a shape. A neighbourhood can also be called an area.
Theme: Measurement and Estimation (M-07-077) **CODE: B 76**	Theme: Measurement and Estimation (M-07-077) **CODE: B 76**
Lesson Title: Area of rectangles and squares	Lesson Title: Area of rectangles and squares
a. What is the longest side of a rectangle called? b. What is the shortest side of a rectangle called? 1½ minutes	Answer: a. length b. width

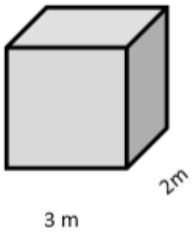
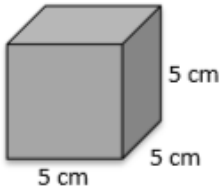
Theme: Measurement and Estimation (M-07-077) **CODE: B 77**	Theme: Measurement and Estimation (M-07-077) **CODE: B 77**
Lesson Title: Area of rectangles and squares	Lesson Title: Area of rectangles and squares
a. What is the formula to calculate the area of a square? b. What is the formula to calculate the area of a rectangle? 2 minutes	Answer: a. Area of a square = L x L = L^2 b. Area of a rectangle = L x W
Theme: Measurement and Estimation (M-07-077) **CODE: B 78**	Theme: Measurement and Estimation (M-07-077) **CODE: B 78**
Lesson Title: Area of rectangles and squares	Lesson Title: Area of rectangles and squares
Calculate the area of these two shapes:  2½ minutes	Answer: $A = l \times l$ = 4 cm× 4 cm = 16 cm^2 and $A = l \times w$ = 8 m ×3m = 24 m^2
Theme: Measurement and Estimation (M-07-078) **CODE: B 79**	Theme: Measurement and Estimation (M-07-078) **CODE: B 79**
Lesson Title: Area of triangles	Lesson Title: Area of triangles
Consider the following triangle:  a. What is the base of this triangle? b. What is the height of this triangle? 2½ minutes	Answer: a. The base is side MN, which in 4m in length. b. The height is side LM, which is 3m in length.
Theme: Measurement and Estimation (M-07-078) **CODE: B 80**	Theme: Measurement and Estimation (M-07-078) **CODE: B 80**
Lesson Title: Area of triangles	Lesson Title: Area of triangles
What is the formula to calculate the area of a triangle? 1½ minutes	Answer: Area of a triangle = $\frac{1}{2} x\ base\ x\ height$ = $\frac{1}{2}\ x\ bh$

Theme: Measurement and Estimation (M-07-078) **CODE: B 81**	Theme: Measurement and Estimation (M-07-078) **CODE: B 81**
Lesson Title: Area of triangles	Lesson Title: Area of triangles
Find the area of this shape:  2½ minutes	Answer: $A = \frac{1}{2}\ x\ 8km\ x\ 10km = 4km\ x\ 10km = 40km^2$
Theme: Measurement and Estimation (M-07-079) **CODE: B 82**	Theme: Measurement and Estimation (M-07-079) **CODE: B 82**
Lesson Title: Perimeter story problems	Lesson Title: Perimeter story problems
Label the following shapes:  2 minutes	Answer: There is a rectangle, a triangle and a square.
Theme: Measurement and Estimation (M-07-079) **CODE: B 83**	Theme: Measurement and Estimation (M-07-079) **CODE: B 83**
Lesson Title: Perimeter story problems	Lesson Title: Perimeter story problems
Mr. Bangura wants to build a fence around his house. His yard is 40 metres long and 30 metres wide. How long will the fence be? 2½ minutes	Answer:  P = 2 (40 m + 30 m) = 2 (70 m) = 140 m
Theme: Measurement and Estimation (M-07-080) **CODE: B 84**	Theme: Measurement and Estimation (M-07-080) **CODE: B 84**
Lesson Title: Area story problems	Lesson Title: Area story problems
A Farmer wants to find the area of his farm so that he can buy fertilizer for his crops. His farm is 150 m long and 80 m wide. What is the area of his farm? If one container of fertilizer covers 1000 square meters, how many containers of fertilizer will the farmer need? 2½ minutes	Answer:  Area of farm: A = 150 m× 80 m = 12,000 m^2; Containers of fertilizer: 12,000 m^2 ÷1000m^2 = 12 containers

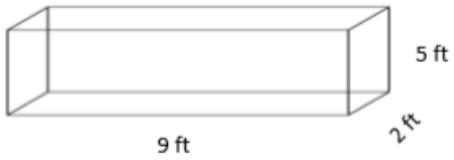
Theme: Measurement and Estimation (M-07-081) **CODE: B 85**	Theme: Measurement and Estimation (M-07-081) **CODE: B 85**
Lesson Title: Circles	Lesson Title: Circles
Explain the meaning of the following terms: a. Centre b. Circumference c. Radius d. Diameter 3½ minutes	Answer: a. The centre is the point in the middle of a circle. b. The circumference is the distance around the circle. c. The radius is the distance from the centre to the circumference. d. The diameter is the distance across the circle, passing through the centre.
Theme: Measurement and Estimation (M-07-081) **CODE: B 86**	Theme: Measurement and Estimation (M-07-081) **CODE: B 86**
Lesson Title: Circles	Lesson Title: Circles
a. Sketch a circle with radius 7 m. What is the diameter? b. Sketch a circle with diameter 42 m. What is the radius? 2½ minutes	Answer: a. 14m b. 21m 
Theme: Measurement and Estimation (M-07-082) **CODE: B 87**	Theme: Measurement and Estimation (M-07-082) **CODE: B 87**
Lesson Title: Circumference of circles	Lesson Title: Circumference of circles
a. What is the circumference of a circle with radius 21 cm? (Use $\frac{22}{7}$ for the value of π). b. What is the circumference of a circle with diameter 56 in? (Use $\frac{22}{7}$ for the value of π). 3½ minutes	Answer: a. $C = 2\pi r = 2\times \frac{22}{7} \times 21$ cm = 132 cm b. $= \frac{56\ in.}{2}$ = 28 in $\rightarrow C = 2\pi r = 2\times \frac{22}{7} \times 28$ in = 2×22×4 in = 44×4 in = 176 in
Theme: Measurement and Estimation (M-07-083) **CODE: B 88**	Theme: Measurement and Estimation (M-07-083) **CODE: B 88**
Lesson Title: Area of circles	Lesson Title: Area of circles
What is the formula to calculate the area of a circle? 1½ minutes	Answer: Area of a circle = πr^2

Theme: Measurement and Estimation (M-07-083) **CODE: B 89**	Theme: Measurement and Estimation (M-07-083) **CODE: B 89**
Lesson Title: Area of circles	Lesson Title: Area of circles
a. Find the area of a circle of radius 8 cm b. Find the area of a circle of radius 12 cm 3½ minutes	Answer: a. A = 3.14×(4 cm)^2 = 50.24 cm^2 b. A = 3.14×(12 cm)^2 = 452.16 cm^2
Theme: Measurement and Estimation (M-07-084) **CODE: B 90**	Theme: Measurement and Estimation (M-07-084) **CODE: B 90**
Lesson Title: Problem solving with circles	Lesson Title: Problem solving with circles
What is circumference? 1½ minutes	Answer: The distance around a circle.
Theme: Measurement and Estimation (M-07-084) **CODE: B 91**	Theme: Measurement and Estimation (M-07-084) **CODE: B 91**
Lesson Title: Problem solving with circles	Lesson Title: Problem solving with circles
What is a semi-circle? 1½ minutes	Answer: It is half a circle.
Theme: Measurement and Estimation (M-07-084) **CODE: B 92**	Theme: Measurement and Estimation (M-07-084) **CODE: B 92**
Lesson Title: Problem solving with circles	Lesson Title: Problem solving with circles
Consider the following figure:  What is the radius of this semi-circle? 1½ minutes	Answer: $r = \frac{14\ m.}{2}$ = 7 m

Theme: Measurement and Estimation (M-07-084) **CODE: B 93**	Theme: Measurement and Estimation (M-07-084) **CODE: B 93**
Lesson Title: Problem solving with circles	Lesson Title: Problem solving with circles
Solve: A semi-circle has a diameter of 28cm. What is the area? (use $\pi = \frac{22}{7}$)  3 minutes	Answer: Area of the semicircle $= \frac{1}{2}\pi r^2$ $= \frac{1}{2} \times \frac{22}{7} \times (14\ m)^2$ $= \frac{11}{7} \times 196\ m^2$ $= 11 \times 28 m^2$ $= 308 m.^2$
Theme: Measurement and Estimation (M-07-084) **CODE: B 94**	Theme: Measurement and Estimation (M-07-084) **CODE: B 94**
Lesson Title: Problem solving with circles	Lesson Title: Problem solving with circles
Calculate the area of the shape below (use $\pi = \frac{22}{7}$).  4½ minutes	Answer: $Area\ of\ A + C = \pi r^2$ $= \frac{22}{7} \times (7\ cm)^2$ $= \frac{22}{7} \times 49\ cm^2 = 22 \times 7\ cm^2$ $= 154\ cm^2$ $Area\ of\ B = 30\ cm \times 14\ cm = 420\ cm^2$ $Area\ of\ A + B + C = 154\ cm^2 + 420\ cm^2 = 574\ cm^2$
Theme: Measurement and Estimation (M-07-085) **CODE: B 95**	Theme: Measurement and Estimation (M-07-085) **CODE: B 95**
Lesson Title: Circle story problems	Lesson Title: Circle story problems
a. A goat is tied to a peg in the ground. The rope is 3 m. long. What area of grass can the goat eat? (Use $\pi = 3.14$) b. A circular mat has a radius of 2 m. Calculate the area of the mat. (Use $\pi = 3.14$)  4 minutes	Answer: a. $A = \pi r^2 = 3.14 \times (3\ m)^2 = 3.14 \times 9\ m^2 = 28.26\ m^2$ b. $A = \pi r^2 = 3.14 \times (2\ m)^2 = 3.14 \times 4\ m^2 = 12.56\ m^2$ 
Theme: Measurement and Estimation (M-07-086) **CODE: B 96**	Theme: Measurement and Estimation (M-07-086) **CODE: B 96**
Lesson Title: Volume of solids	Lesson Title: Volume of solids
a. Find the area of a rectangle with length 7 cm and width 5 cm b. What does a square unit measure? 2½ minutes	Answer: a. Area = l×w = 7 cm×5 cm = 35 cm^2 b. A square unit measures area

Theme: Measurement and Estimation (M-07-086) **CODE: B 97**	Theme: Measurement and Estimation (M-07-086) **CODE: B 97**
Lesson Title: Volume of solids	Lesson Title: Volume of solids
a. Draw a rectangular prism with height 5m length 3m and width 2m b. What units will the volume be in? 3 minutes	Answer: (a)  (b) m^3
Theme: Measurement and Estimation (M-07-087) **CODE: B 98**	Theme: Measurement and Estimation (M-07-087) **CODE: B 98**
Lesson Title: Volume of a cube	Lesson Title: Volume of a cube
a. State the formula of the volume of a rectangular solid. b. If the unit is feet, what will the unit for volume be? 2 minutes	Answer: a. $V = l \times w \times h$ b. cubic feet
Theme: Measurement and Estimation (M-07-087) **CODE: B 99**	Theme: Measurement and Estimation (M-07-087) **CODE: B 99**
Lesson Title: Volume of a cube	Lesson Title: Volume of a cube
Draw a cube of sides 5 cm and calculate its volume. 3½ minutes	Answer: V = 5×5×5 = 125cm^3 
Theme: Measurement and Estimation (M-07-087) **CODE: B 100**	Theme: Measurement and Estimation (M-07-087) **CODE: B 100**
Lesson Title: Volume of a cube	Lesson Title: Volume of a cube
Fill in the blank spaces to show volume of a cube with sides of length 15 feet: V= _____x _____x_____ = _____ft^3 2½ minutes	Answer: V = 15×15×15 = 3375 ft^3

Theme: Measurement and Estimation (M-07-088) **CODE: B 101**	Theme: Measurement and Estimation (M-07-088) **CODE: B 101**
Lesson Title: Volume of a cuboids	Lesson Title: Volume of a cuboids
State the formula for the volume of a cuboid. 1½ minutes	Answer: $V = l \times w \times h$

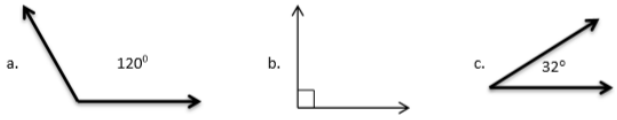
Theme: Measurement and Estimation (M-07-088) **CODE: B 102**	Theme: Measurement and Estimation (M-07-088) **CODE: B 102**
Lesson Title: Volume of a cuboids	Lesson Title: Volume of a cuboids
a. Calculate the volume of the cuboid below:  b. A cuboid measures 4mm by 3mm by 6mm. Find the volume of the cuboid. 3 minutes	Answer: a. V = 9 ft ×2 ft×5 ft = 90 ft^3 b. V = 4 mm×3 mm×6 mm = 72 mm^3

Theme: Measurement and Estimation (M-07-089) **CODE: B 103**	Theme: Measurement and Estimation (M-07-089) **CODE: B 103**
Lesson Title: Problem solving with volumes	Lesson Title: Problem solving with volumes
a. State the formula for finding the volume of cuboid. b. State the formula for finding the volume of a cube. 1½ minutes	Answer: a. $V = l \times w \times h$ b. $V = l^3$

Theme: Measurement and Estimation (M-07-089) **CODE: B 104**	Theme: Measurement and Estimation (M-07-089) **CODE: B 104**
Lesson Title: Problem solving with volumes	Lesson Title: Problem solving with volumes
a. A box has a base with area 81 cm^2. Calculate the volume of the box if it is 10 cm deep. b. A wooden cupboard is 10cm high. The volume of wood used to make the cupboard is 1000 cm^3. Calculate the area of the base of the wooden cupboard. 3½ minutes	Answer: a. $V = A \times h$ = 81×10 = 810cm^3 b. $A = \frac{v}{l}$ $= \frac{1000}{10}$ = 100cm^2

Theme: Measurement and Estimation (M-07-090) **CODE: B 105**	Theme: Measurement and Estimation (M-07-090) **CODE: B 105**
Lesson Title: Volume story problems	Lesson Title: Volume story problems
a. What is 1 cubic unit? b. What is volume? 2 minutes	Answer: a. 1 cubic unit is a measurement for volume b. Volume is the amount of space taken up by an object
Theme: Measurement and Estimation (M-07-090) **CODE: B 106**	Theme: Measurement and Estimation (M-07-090) **CODE: B 106**
Lesson Title: Volume story problems	Lesson Title: Volume story problems
A water tank is 12m high, 5m long and 9m wide. A solid metal box 7m high, 4m long and 8m wide is sitting at the bottom of the tank. The tank is filled with water. What is the shape of the water tank and solid metal? 1 minute	Answer: It is in the shape of a rectangular prism.
Theme: Measurement and Estimation (M-07-090) **CODE: B 107**	Theme: Measurement and Estimation (M-07-090) **CODE: B 107**
Lesson Title: Volume story problems	Lesson Title: Volume story problems
A sea turtle house at the zoo is made by connecting two large glass tanks. The first glass tank is 6 m long, 4 m wide and 2 m high. The second glass tank is 8 m long, 9 m wide and 3 m high. How many cubic meters of space do the sea turtles have in their house? 4 minutes	Answer: V = volume of first glass tank + volume of second glass tank V = $(8\times9\times3)\ m^3 + (6\times4\times2)\ m^3$ = $216m^3+48m^3$ = $264\ m^3$
Theme: Geometry (M-07-091) **CODE: B 108**	Theme: Geometry (M-07-091) **CODE: B 108**
Lesson Title: Introduction to angles	Lesson Title: Introduction to angles
What is an angle? 1½ minutes	Answer: An angle is the space between two lines that cross.

Theme: Geometry (M-07-091)	CODE: B 109
Lesson Title: Introduction to angles	
A. Draw 3 angles: 1 obtuse, 1 right, and 1 acute angle. B. Classify the following degrees into obtuse, right or acute angle: i.1° ii.91° iii. 89° iv.90° v.179° 4 minutes	

Theme: Geometry (M-07-091)	CODE: B 109
Lesson Title: Introduction to angles	
Answer: A.  B. i. Acute ii. Obtuse iii. Acute iv. Right v. Obtuse	

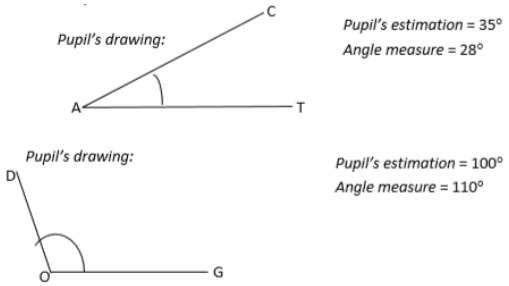
Theme: Geometry (M-07-092)	CODE: B 110
Lesson Title: Right angles	
What are the units we use to measure angles? 1 minute	

Theme: Geometry (M-07-092)	CODE: B 110
Lesson Title: Right angles	
Answer: Degrees	

Theme: Geometry (M-07-092)	CODE: B 111
Lesson Title: Right angles	
Draw a square. Measure each of its 4 angles. Find the sum of the four angles of the square. 2½ minutes	

Theme: Geometry (M-07-092)	CODE: B 111
Lesson Title: Right angles	
Answer: 90°+90°+90°+90° = 180°+180° = 360°	

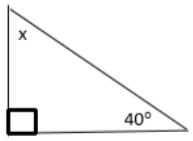
Theme: Geometry (M-07-093)	CODE: B 112
Lesson Title: Measurement of angles	
Draw an acute angle and an obtuse angle. Estimate the measure of each, then measure them with a protractor. 4 minutes	

Theme: Geometry (M-07-093)	CODE: B 112
Lesson Title: Measurement of angles	
Answer:  	

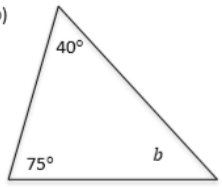
Theme: Geometry (M-07-094)	CODE: B 113
Lesson Title: Finding unknown angles in triangles	

Find the unknown angles in the diagrams:

a)



b)



4 minutes

Theme: Geometry (M-07-094)	CODE: B 113
Lesson Title: Finding unknown angles in triangles	

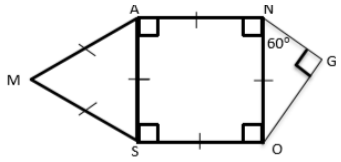
Answer:

a. x +40°+90° = 180° $\rightarrow$ x +130° = 180°
$\rightarrow$ x = 180°−130° = 50°

b. b +40°+75° = 180° $\rightarrow$ b+115° = 180°
$\rightarrow$ b = 180°−115° = 65°

Theme: Geometry (M-07-095)	CODE: B 114
Lesson Title: Find unknown angles in composite shapes	

Find the value or the lettered angles:



2½ minutes

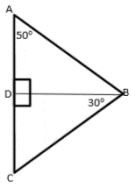
Theme: Geometry (M-07-095)	CODE: B 114
Lesson Title: Find unknown angles in composite shapes	

Answer:

M = 60° A = 60°+90° = 150° N = 60°+90° = 150° G = 90° O = 30°+90° = 120° S = 90°+60° = 150°

Theme: Geometry (M-07-095)	CODE: B 115
Lesson Title: Find unknown angles in composite shapes	

Find the value or the lettered angles:



2½ minutes

Theme: Geometry (M-07-095)	CODE: B 115
Lesson Title: Find unknown angles in composite shapes	

Answer:

A = 50° B = 30°+ 40° = 70 C = 60° D = 90°+90° = 180°

Theme: Geometry (M-07-096)	CODE: B 116
Lesson Title: Intr to complementary & supplementary angles	

Complete the following sentences:

a. Angles that add up to 90 degrees are called _____.
b. Angles that add up to 180 degrees are called _____.

2 minutes

Theme: Geometry (M-07-096)	CODE: B 116
Lesson Title: Intr to complementary & supplementary angles	

Answer:

a. Angles that add up to 90 degrees are called complimentary angles.
b. Angles that add up to 180 degrees are called supplementary angles.

Theme: Geometry (M-07-096)	CODE: B 117
Lesson Title: Intro to complementary & supplementary angles	

Solve:

i. 1°+ 89°
ii. 60°+120°
iii. 79 °+11°
iv. 45° + 45°
v. 171°+9°

3½ minutes

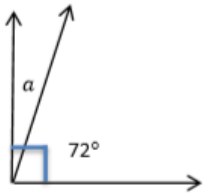
Theme: Geometry (M-07-096)	CODE: B 117
Lesson Title: Intro to complementary & supplementary angles	

Answers:

i. Complementary
ii. Supplementary
iii. Complementary
iv. Complementary
v. Supplementary

Theme: Geometry (M-07-097)	CODE: B 118
Lesson Title: Complimentary angles	

Find the value of *a* in the diagram below:



2 minutes

Theme: Geometry (M-07-097)	CODE: B 118
Lesson Title: Complimentary angles	

Answer:

a +72° = 90°
a = 90°− 72°
= 18°

Theme: Geometry (M-07-097)	CODE: B 119
Lesson Title: Complimentary angles	

i. If m and 54° are complementary angles, find the value of angle m.
ii. If y and 7° are complementary angles, find the value of angle y.

2½ minutes

Theme: Geometry (M-07-097)	CODE: B 119
Lesson Title: Complimentary angles	

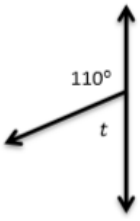
Answer:

i. m = 46°

ii. y = 83°

Theme: Geometry (M-07-098)	CODE: B 120
Lesson Title: Supplementary angles	

i. If p and 3° are supplementary angles, find the value of angle p.
ii. If s and 162° are supplementary angles, find the value of angle s.
iii. Find the missing angle *t* in the diagram:



3 minutes

Theme: Geometry (M-07-098)	CODE: B 120
Lesson Title: Supplementary angles	

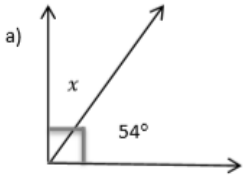
Answer:

i. p = 177°
ii. s = 18°
iii. t = 70°

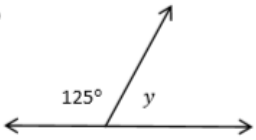
Theme: Geometry (M-07-099)	CODE: B 121
Lesson Title: Supplementary angles	

Find the values of the missing angles in the diagrams below:

a)



b)



2½ minutes

Theme: Geometry (M-07-099)	CODE: B 121
Lesson Title: Supplementary angles	

Answer:

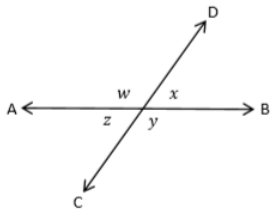
a) $90° - 54° = 36°$

b) $180° - 125° = 55°$

Theme: Geometry (M-07-099)	CODE: B 122
Lesson Title: Supplementary angles	

Consider the diagram below and complete the following:

a. $w + x =$
b. $z + y =$
c. $x + y =$
d. $z + w =$



3½ minutes

Theme: Geometry (M-07-099)	CODE: B 122
Lesson Title: Supplementary angles	

Answer:

a. $w + x = 180°$
b. $z + y = 180°$
c. $x + y = 180°$
d. $z + w = 180°$

Theme: Geometry (M-07-099)	CODE: B 123
Lesson Title: Supplementary angles	

Consider the following equation and find the value of x:

$x + 56° = 180°$

1½ minutes

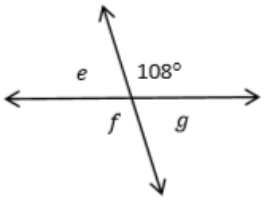
Theme: Geometry (M-07-099)	CODE: B 123
Lesson Title: Supplementary angles	

Answer:

$x + 56° = 180°$
$x = 180° - 56°$
$x = 124°$

Theme: Geometry (M-07-099)	CODE: B 124
Lesson Title: Supplementary angles	

Find the values of the missing angles in the diagram below:



3½ minutes

Theme: Geometry (M-07-099)	CODE: B 124
Lesson Title: Supplementary angles	

Answer:

$e = 180° - 108° = 72°$
$f = 180° - 72° = 108°$
$g = 180° - 108° = 72°$

Theme: Geometry (M-07-100)	CODE: B 125
Lesson Title: Transversal of parallel lines	

Complete the following sentences:

a. Corresponding angles on parallel lines are _____

b. Co-interior angles on parallel lines add up to _____

c. Alternate angles on parallel lines are _____

2½ minutes

Theme: Geometry (M-07-100)	CODE: B 125
Lesson Title: Transversal of parallel lines	

Answer:

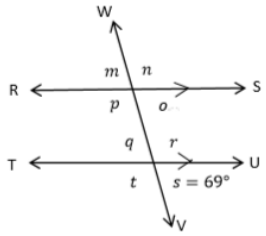
a. Corresponding angles on parallel lines are **equal**.

b. Co-interior angles on parallel lines add up to **180°**

c. Alternate angles on parallel lines are **equal**.

Theme: Geometry (M-07-100)	CODE: B 126
Lesson Title: Transversal of parallel lines	

Find the values of the missing angles:



3½ minutes

Theme: Geometry (M-07-100)	CODE: B 126
Lesson Title: Transversal of parallel lines	

Answer:

$m = o = q = 69°$

and

$n = p = r = t = 111°$

Theme: Geometry (M-07-101)	CODE: B 127
Lesson Title: Transversal of parallel lines	

Draw a circle and label the following:

a. Centre B

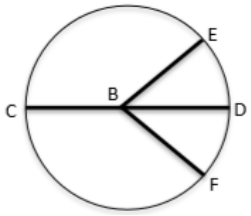
b. Diameter CD

c. Two radii BE and BF

3 minutes

Theme: Numbers and Numeration (M-07-047)	CODE: B B
Lesson Title:	

Answer:



Theme: Geometry (M-07-102)	CODE: B 128
Lesson Title: Construction of triangles	

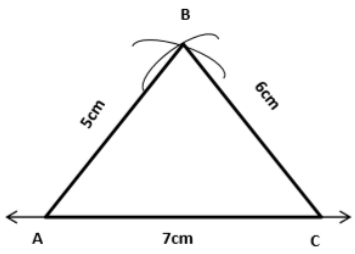
Construct triangle ***ABC*** such that :

$\overline{AB} = 5$ cm, $\overline{BC} = 6$ cm and $\overline{AC} = 7$ cm

3½ minutes

Theme: Geometry (M-07-102)	CODE: B 128
Lesson Title: Construction of triangles	

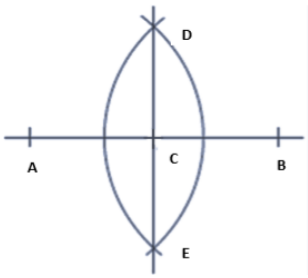
Answer:



Theme: Geometry (M-07-103)	CODE: B 129
Lesson Title: Construction of parallel lines	
Draw a vertical line $\overline{AB}$ Parallel to it, construct line $\overline{CD}$ 3½ minutes	

Theme: Geometry (M-07-103)	CODE: B 129
Lesson Title: Construction of parallel lines	
Answer:  	

Theme: Geometry (M-07-104)	CODE: B 130
Lesson Title: Construction of perpendicular lines	
Draw a line segment $\overline{AB}$ Construct a point **C** on it Construct line $\overline{DE}$ Perpendicular to $\overline{AB}$ 4 minutes	

Theme: Geometry (M-07-104)	CODE: B 130
Lesson Title: Construction of perpendicular lines	
Answer:  	

Theme: Geometry (M-07-105)	CODE: B 131
Lesson Title: Construction practise	
Draw a line segment $\overline{QR}$. Mark a point **P** on it. Construct line $\overline{ST}$ perpendicular to $\overline{QR}$. 4 minutes	

Theme: Geometry (M-07-105)	CODE: B 131
Lesson Title: Construction practise	
Answer: