Secondary Engagement Program

Term 3

Transition Class

Activity Sheets



MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 1 **Lesson: 1**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Multiplication of whole numbers



To multiply 2 and 3 digits whole numbers we must set the numbers directly under each other so that the number in the ones place are aligned.

345

x 26

We must then multiply the digit in the ones place of the multiplier by the digit in the ones place in the multiplicand.

Multiply the digit in the ones place of the multiplier by the digit in the tens place of the multiplicand. Add the value of any carried number to the total.

Multiply the digit in the tens place of the multiplier by the digit in the ones place the multiplicand.

	345	multiplicand
multiplier	x 26	
	2070	x 6

Multiply the digit in the tens place in the multiplier by the digit in the ones place in the multiplicand. Add any number carried.

Multiply the number in the tens place of the multiplier by the number in the tens place the multiplicand.

Multiply the number in the tens place of the multiplier by the number in the hundreds place the multiplicand.

345

x 26

2070

6900 x 20 the value of the 2 is 20

Add both answers together to get the final results.

345

x 26

2070

+6900

8970

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SECONDARY ENGAGEMENT PROGRAMME

Week: 1 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Multiplication of whole numbers

Activity

Multiply the following whole numbers.

1. 487 x 21

2. 132 x 34

3. 143 x 36

4. 204 x 27

5. 280 x 43

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SECONDARY ENGAGEMENT PROGRAMME

Week: 1 **Lesson: 3**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Multiplication of whole numbers

Multiplication of Whole numbers without carrying

Expanded Notation

To multiply numbers by expanded notation we must first expand the numbers by righting the value of each number and then multiply.

For example

345 x 26

(300 + 40 + 5) (20 + 6)

We then multiply everything that is in the first bracket by what is in the second bracket individually.

$$\begin{array}{r} 300 + 40 + 5 \\ \underline{\text{X} \qquad\qquad 20} \\ \underline{6000 + 800 + 100} \end{array}$$

Answer = 6900

$$\begin{array}{r} 300 + 40 + 5 \\ \underline{\text{X} \qquad\qquad 6} \\ \underline{1800 + 240 + 30} \end{array}$$

Answer = 2070

Then add both answers to get the total.

$$\begin{array}{r} 6900 \\ +\ 2070 \\ \hline 8970 \end{array}$$ final answer

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SECONDARY ENGAGEMENT PROGRAMME

Week: 1 **Lesson: 4**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Multiplication of whole numbers

Activity

Using the expanded notation method multiply the following.

1. 487 x 21

2. 132 x 34

3. 143 x 36

4. 280 x 43

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SECONDARY ENGAGEMENT PROGRAMME

Week: 2 **Lesson: 1**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Multiplication of decimal numbers

Multiplying 2 and 3 digit decimal numbers with and without carrying

First, we must align the numbers making sure that the point is directly under each other and count the decimal places (dp).

6.32 x 1.9

6.32	2 dp
X 1.9	+1 dp
	3 dp

Then we can set down the numbers without the points and multiply as normal.

632

x 19

5688

+ 6320

12008

We now write our answer with 3 decimal places.

Since 632 x 19 = 12008 then 6.32 x 1.9 = 12. 008

Activity

Multiply the following decimals.

1. 3. 7 x 2.4

2. 30.6 x 3.8

3. 3.74 x 4.3

4. 5.68 x 4.5

5. 7.92 x 9.3

6. 9.31 x 4

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 2 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Multiplication of decimal numbers

1. 0.38×0.127

2. 0.10×37.7

3. 0.094×0.367

4. 3.4×4.72

5. 7.8×0.258

6. 0.053×0.578

7. 0.052×8.17

8. 1.3×9.16

9. 0.078×31.9

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SECONDARY ENGAGEMENT PROGRAMME

Week: 2 **Lesson: 3**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Multiplication of decimal numbers

68.2×8.4	630×1.2	16.0×36	5.52×0.25	32.3×26
7.91×0.19	26.3×7.8	3.07×19	63.2×8.5	0.394×70
55.8×9.4	596×3.6	940×8.2	203×42	0.707×0.97
906×64	310×1.8	520×0.92	131×0.41	6.00×5.1
0.913×56	12.8×3.8	52.2×2.3	0.394×76	0.411×0.35

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SECONDARY ENGAGEMENT PROGRAMME

Week: 2 **Lesson: 4**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Multiplication of decimal numbers

Multiply the following.

1. **1.92 x 0.7**

2. **2.5 x 1.1**

3. **12.6 x 1.2**

4. **13.2 x 0.11**

5. **3.47 x 0.7**

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SECONDARY ENGAGEMENT PROGRAMME

Week: 3 **Lesson: 1**

SUBJECT: Mathematics

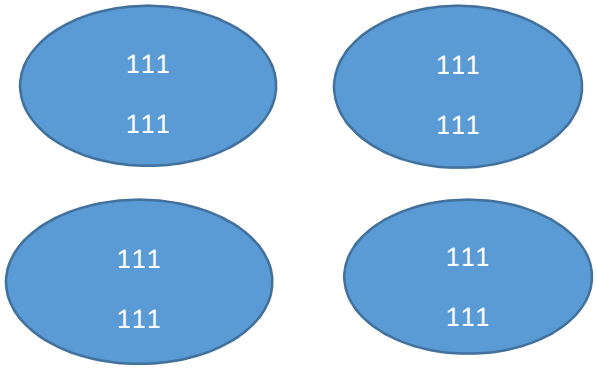
TOPIC: Numbers, Numeration and Operation

Sub-topic: Division of whole numbers

In division, the number that is being divided is called the dividend. The number that is used to divide is called the divisor.

For small numbers we can divide by grouping Example.

24 ÷ 6



24 ÷ 6 = 4, since there are 4 groups of 6 in 24.

Activity

Divide the following by grouping.

1. 25 ÷ 5=

2. 30 ÷ 5=

3. 28 ÷ 7=

4. 24 ÷ 3=

5. 40 ÷ 4=

6. 35 ÷ 5

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SECONDARY ENGAGEMENT PROGRAMME

Week: 3 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Division of whole numbers

Name: _____ Date: _____

Division Worksheet

1 a.	15 ÷ 3 = _____	1 b.	18 ÷ 3 = _____
2 a.	2 ÷ 2 = _____	2 b.	27 ÷ 3 = _____
3 a.	12 ÷ 3 = _____	3 b.	12 ÷ 2 = _____
4 a.	21 ÷ 3 = _____	4 b.	3 ÷ 3 = _____
5 a.	14 ÷ 2 = _____	5 b.	4 ÷ 2 = _____
6 a.	9 ÷ 3 = _____	6 b.	8 ÷ 2 = _____

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SECONDARY ENGAGEMENT PROGRAMME

Week: 3 **Lesson: 3**

SUBJECT: Mathematics

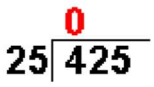
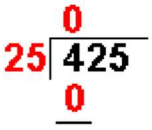
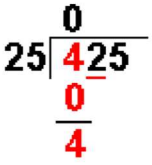
TOPIC: Numbers, Numeration and Operation

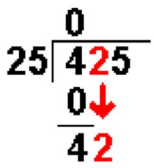
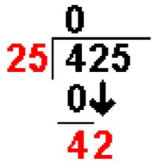
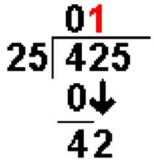
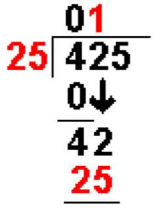
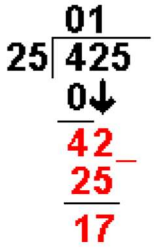
Subtopic: Division of whole numbers

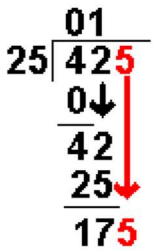
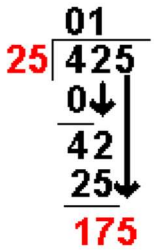
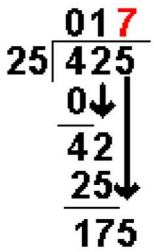
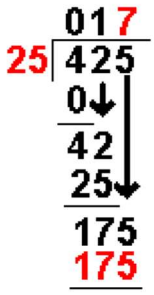
Long Division

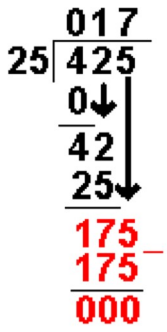
When doing long division, we divide, multiply, subtract, bring down, repeat

- the number to be divided into is called the dividend
- The number which divides the other number is called the divisor

	4 ÷ 25 = 0 remaind er 4	The first digit of the dividend (4) is divided by the divisor.
		The whole number result is placed at the top. Any remainders are ignored at this point.
	25 × 0 = 0	The answer from the first operation is **multiplied** by the divisor. The result is placed under the number divided into.
	4 − 0 = 4	Now we **subtract** the bottom number from the top number.

		*Bring down the next digit of the dividend.*
	**42 ÷ 25 = 1 remainder 17**	**Divide this number by the divisor.**
		The whole number result is placed at the top. Any remainders are ignored at this point.
	25 × 1 = 25	The answer from the above operation is **multiplied** by the divisor. The result is placed under the last number divided into.
	42 − 25 = 17	Now we **subtract** the bottom number from the top number.

		Bring down the next digit of the dividend.
	175 ÷ 25 = 7 remainder 0	**Divide** this number by the divisor.
		The whole number result is placed at the top. Any remainders are ignored at this point.
	25 × 7 = 175	The answer from the above operation is **multiplied** by the divisor. The result is placed under the number divided into.

	175 − 17 5 = 0	Now we **subtract** the bottom number from the top number.
		There are no more digits to bring down. The answer must be 17

Activity

Divide the following using long division.

1. 432 ÷ 18
2. 946 ÷ 22
3. 624 ÷ 29

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SECONDARY ENGAGEMENT PROGRAMME

Week: 3 **Lesson: 4**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Division of whole numbers

Activity

Divide the following by both grouping and long division.

1. $60 \div 3$

2. $144 \div 12$

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SECONDARY ENGAGEMENT PROGRAMME

Week: 4 **Lesson: 1**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Division of decimal numbers

To divide a decimal number by a whole number the division is performed in the same way as in the whole numbers. We first divide the two numbers ignoring the decimal point and then place the decimal point in the quotient in the same position as in the dividend.

Example.

$5.64 \div 12$

$$
\begin{array}{r}
0.47 \\
12\overline{)\,5.64} \\
-4\;8 \\
\hline
84 \\
-84 \\
\hline
0
\end{array}
$$

Activity

Divide the following decimals.

1. $4.36 \div 12$

2. $8.75 \div 15$

3. $46.9 \div 19$

4. $3.124 \div 11$

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SECONDARY ENGAGEMENT PROGRAMME

Week: 4 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Division of Decimal numbers

Name Date



DECIMAL DIVISION WITH 2DP SHEET 1

1) $7\overline{)44.94}$ 2) $4\overline{)85.92}$ 3) $6\overline{)56.82}$

4) $4\overline{)93.00}$ 5) $5\overline{)40.85}$ 6) $9\overline{)60.57}$

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SECONDARY ENGAGEMENT PROGRAMME

Week: 4 **Lesson: 3**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Division of Decimal

Dividing Decimals by Whole Numbers (A)

Find each quotient.

$6\overline{)1.29}$ $6\overline{)9.51}$ $5\overline{)1.26}$ $6\overline{)7.79}$

$2\overline{)9.70}$ $5\overline{)3.76}$ $4\overline{)7.77}$ $2\overline{)2.12}$

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SECONDARY ENGAGEMENT PROGRAMME

Week: 4 **Lesson: 4**

SUBJECT: Mathematics

TOPIC: Numbers, Numeration and Operation

Sub-topic: Division of Decimal

Answer the following question.

In Science class, Mrs. Olson had 30.6 pounds of metamorphic rock. Mrs. Olson had to divide the rocks into 9 different containers for a class assignment. If the rocks are equally divided by weight into 9 different containers, how many pounds of rock will be in each container?

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SECONDARY ENGAGEMENT PROGRAMME

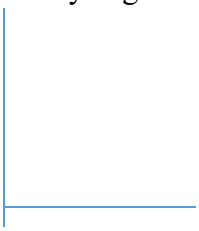
Week: 5 **Lesson: 1**

SUBJECT: Mathematics

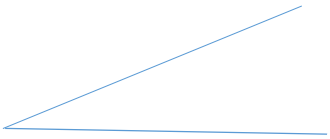
TOPIC: Geometry

Sub-topic: Types of angles and their Properties

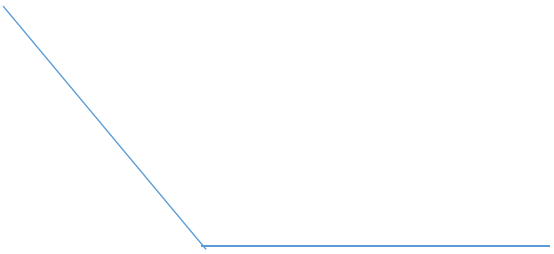
The types of angles are acute, obtuse, reflex, right, straight, opposite, complementary and supplementary angles.



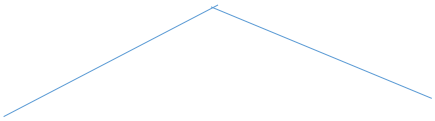
A right angle is equal to 90°



An acute angle is less than 90°

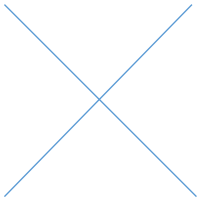


An obtuse angle is less more than 90◦ but less than 180◦

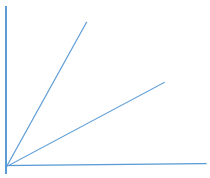


A reflex angle is more than 180◦ but less than 360◦

A straight angle is equal to 180 ◦



Opposite angles are equal



Complimentary angles: the sum of angles is equal to 90 ◦

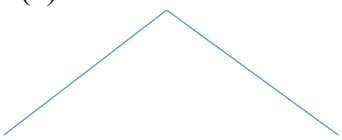


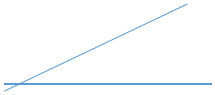
supplementary angles: the sum of the angles= 180◦

Activity

1. Which of the following is a reflex angle?

(a) 

(b) 

(c) 

2. An acute angle is less than _____.

3. A right angle is equal to _____.

4. Straight angles are equal to _____.

5. An obtuse angle is greater than _____ but less than _____.

6. Opposite angles are _____.

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 5 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Geometry

Sub-topic: Types of angles and their Properties

Activity

1. Using a protractor draw a right angle, an obtuse angle and a reflex angle.

2. The sum of complementary angle is equal to _____.

3. The sum of supplementary angle is equal to _____.

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 5 **Lesson: 3**

SUBJECT: Mathematics

TOPIC: Geometry

Sub-topic: Types of angles and their Properties

The sum of complementary angles is equal to 90°.

The complement of 23°

= 90° - 23 °

= 67°

The complement of 23 ° = 67°

Activity

Find the complement of the following.

1. The complement of 61°.

2. The complement of 54°.

3. The complement of 47°.

4. The complement of 30°.

5. The complement of 28°.

6. The complement of 75°.

7. The complement of 82°.

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SECONDARY ENGAGEMENT PROGRAMME

Week: 5 **Lesson: 4**

SUBJECT: Mathematics

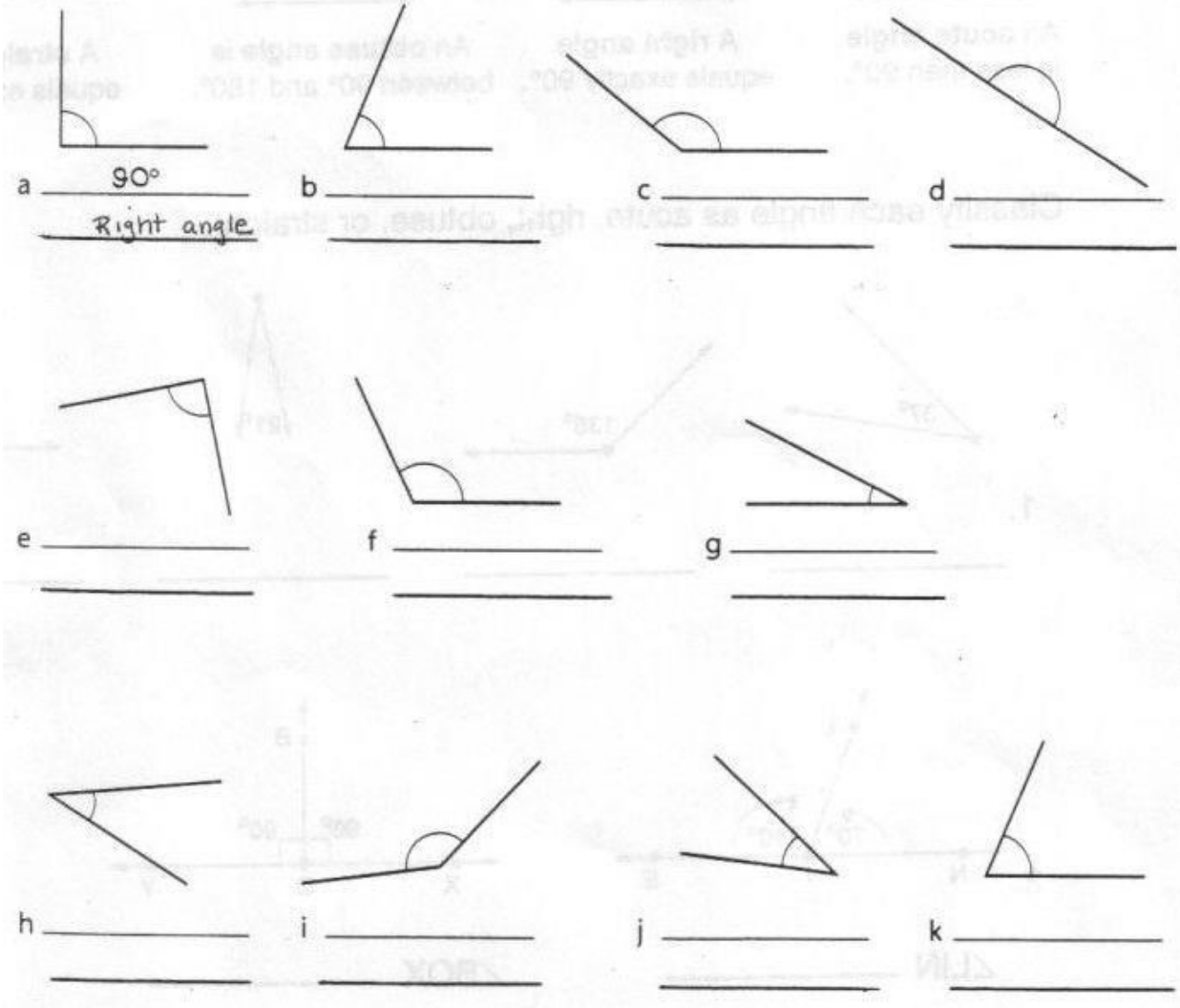
TOPIC: Geometry

Sub-topic: Types of angles and their Properties

What's the angle?

1. Name each angle

2. Measure these angles using a protractor. The first one is done for you.



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SECONDARY ENGAGEMENT PROGRAMME

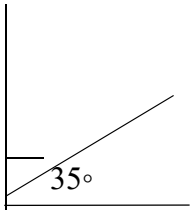
Week: 6 **Lesson: 1**

SUBJECT: Mathematics

TOPIC: Geometry

Sub-topic: Calculation of angles at a point

Complementary angles: The sum of angles is = 90◦

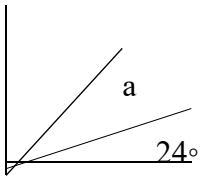


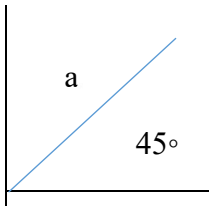
The missing angle =90◦ - 35◦

a = 90 – 35

= 55 a =

55◦

1. 

2. 

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SECONDARY ENGAGEMENT PROGRAMME

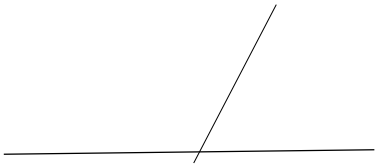
Week: 6 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Geometry

Sub-topic: Calculation of angles at a point

Supplementary angles are equal to 180◦



s

72◦

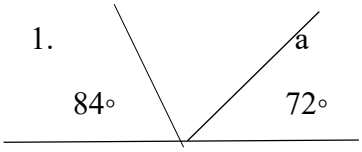
The missing angle = 180◦ - 72◦

s =180 - 72

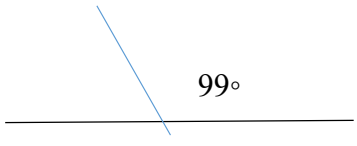
= 108◦

The missing angle is = 108◦

1.



2.



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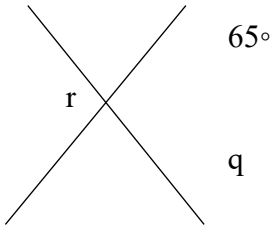
Week: 6 **Lesson: 3**

SUBJECT: Mathematics

TOPIC: Geometry

Sub-topic: Calculation of angles at a point

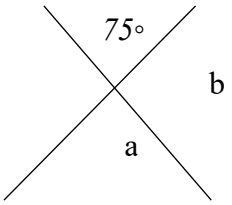
Opposite angles are equal and angles on a straight line equals 180◦.

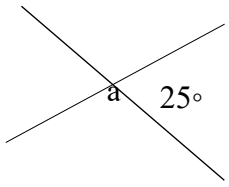


q= 65◦ since the opposite angle is 65◦ r = 180 – 65 r = 115 r = 115◦

since it is on a straight line and angles on a straight line = 180◦ Find

angles a and b.

1. 

2. 

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 6 **Lesson: 4**

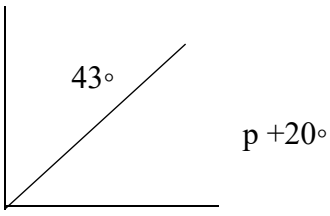
SUBJECT: Mathematics

TOPIC: Geometry

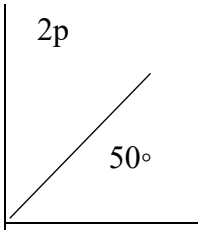
Sub-topic: Calculation of angles at a point

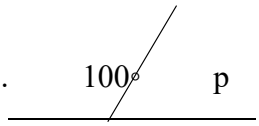
Find the value of p on each right angle.

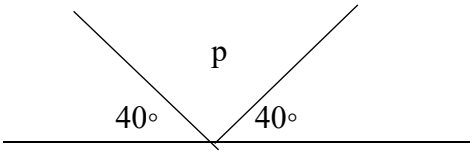
1.



2.



3. 

4. 

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 7 **Lesson: 1**

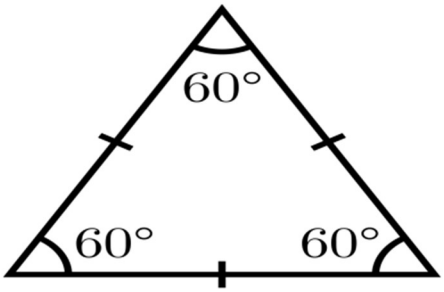
SUBJECT: Mathematics

TOPIC: Geometry

Sub-topic: Calculation of angles at a point

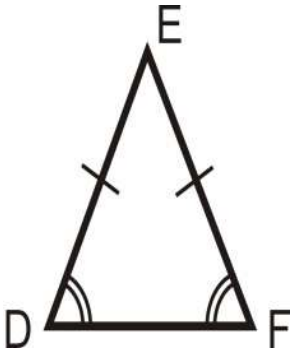
Triangles

A triangle is a polygon with three sides. The types of triangles are isosceles, equilateral, scalene, right angled, acute angled, and obtuse angled triangle.



1. Equilateral triangle

An equilateral triangle has all the sides of equal length and all the angle equal to 60◦. All equilateral triangles have 3 line of symmetry.



2. Isosceles triangle

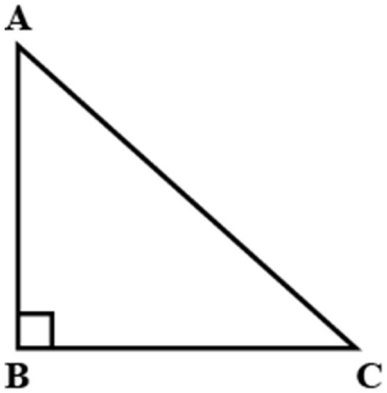
An isosceles triangle has 2 angles equal and 2 sides of equal length.

All isosceles triangles have a line of symmetry.



3. Scalene triangle

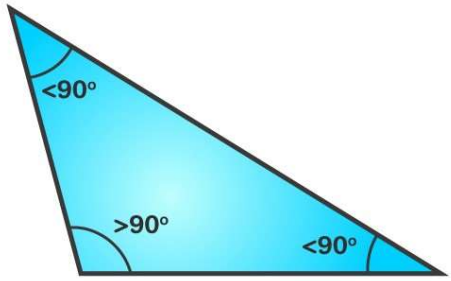
A scalene triangle has no angles and no sides the same length.



4. Right angled triangle

A right-angled triangle has one angle a right angle.

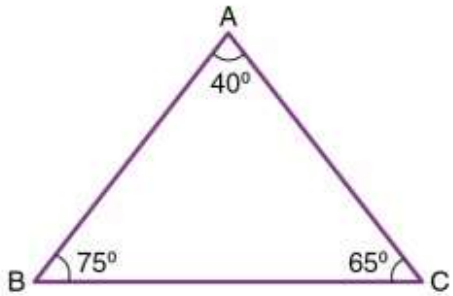
(equal to 90◦)



5. Obtused angled triangle

An obtuse angled triangle has one angle obtuse

(an angle greater than 90◦)



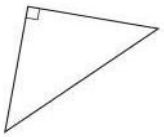
© Byjus.com

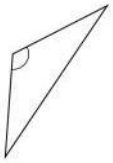
6. Acute angled triangle

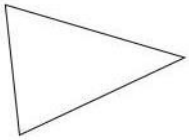
An acute angled triangle has all its angles acute.

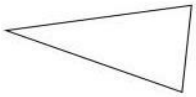
Activity

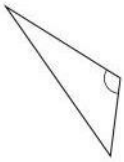
Classify each triangle using its angle properties.

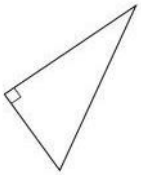
1. 

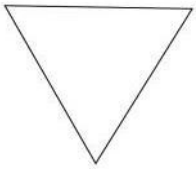
2. 

3. 

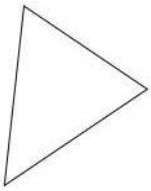
4. 

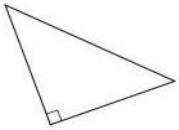
5. 

6. 

7. 

8. 

9. 

10. 

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SECONDARY ENGAGEMENT PROGRAMME

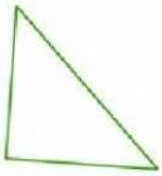
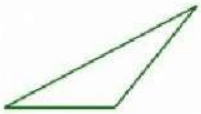
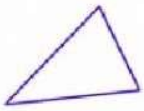
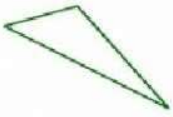
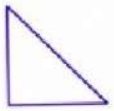
Week: 7 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Geometry

Sub-topic: Calculation of angles at a point

Classify the triangles by their angles (acute, right, obtuse)

1. a. Acute b. Right c. Obtuse 	2. a. Acute b. Right c. Obtuse 
3. a. Acute b. Right c. Obtuse 	4. a. Acute b. Right c. Obtuse 
5.  a. Acute b. Right c. Obtuse	6.  a. Acute b. Right c. Obtuse
7.  a. Acute b. Right c. Obtuse	8.  a. Acute b. Right c. Obtuse

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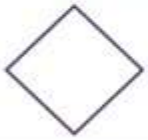
SECONDARY ENGAGEMENT PROGRAMME

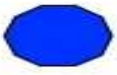
Week: 7 **Lesson: 3**

SUBJECT: Mathematics

TOPIC: Geometry

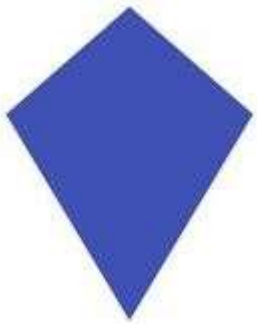
Sub topic: Types of polygons and their properties

Type	Properties
Parallelogram 	• Opposite sides are equal and parallel • Opposite angles are equal
Rectangle 	• Opposite sides are equal and parallel • All angles are right angles (90°)
Square 	• Opposite sides are parallel • All sides are equal • All angles are right angles (90°)
Rhombus 	• Opposite sides are parallel • All sides are equal • Opposite angles are equal • Diagonals bisect each other at right angles (90°)
Trapezoid 	• One pair of opposite sides is parallel
Kite 	• Two pairs of adjacent sides are equal • One pair of opposite sides are equal • One diagonal bisects the other • Diagonals intersect at right angle (90°)

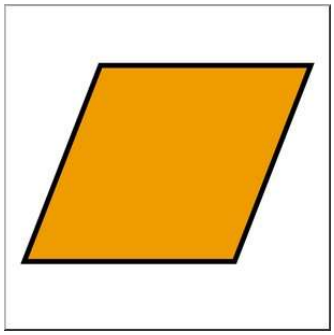
Regular polygons	No. of sides and vertices	No. of angles	Size of interior angles	No. of lines of symmetry
equilateral triangle 	3	3	60°	3
square 	4	4	90°	4
pentagon 	5	5	108°	5
hexagon 	6	6	120°	6
heptagon 	7	7	128.6°	7
octagon 	8	8	135°	8
nonagon 	9	9	140°	9
decagon 	10	10	144°	10

Activity

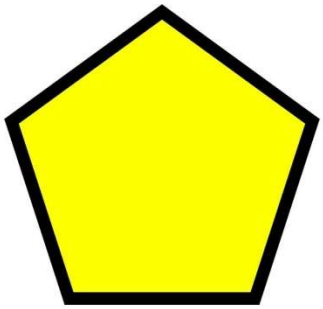
Write the names for the polygons below.



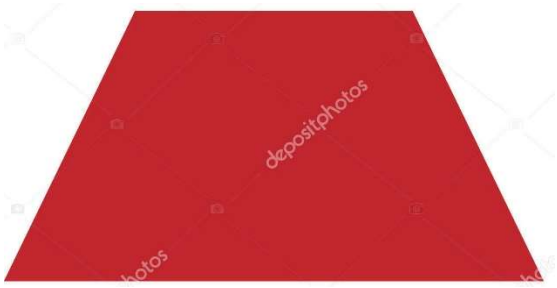
_____



_____



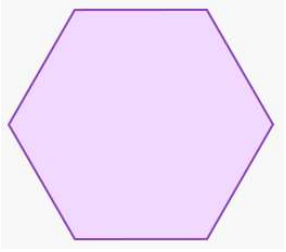
_____



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_____

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 7 **Lesson: 4**

SUBJECT: Mathematics

TOPIC: Geometry

Sub topic: Types of polygons and their properties

Activity

1. A polygon with six sides is called a _____.

2. A polygon with 4 sides is called a _____.

3. A polygon with three sides is called a _____.

4. A polygon with nine sides is called a _____.

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 8 **Lesson: 1**

SUBJECT: Mathematics

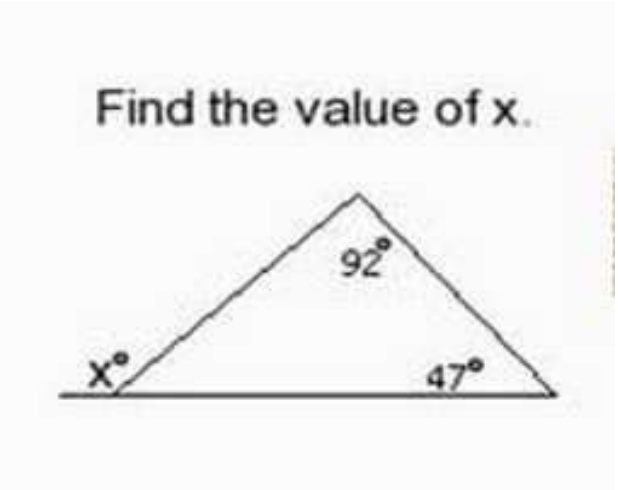
TOPIC: Geometry

To calculate missing angles

1. Subtract the two known angles from 180°

2. Plug the two angles into the formula and use algebra: a + b + c = 180°

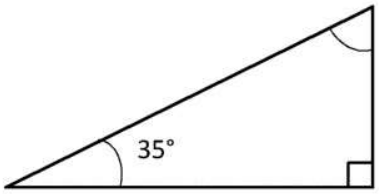
Here is an example:



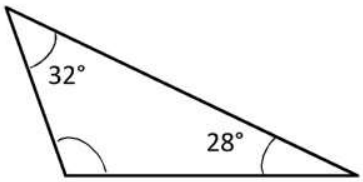
X = 180 – (92 + 47)
X = 180 – 139
x= 49

Work out the missing angles. The angles are not drawn to scale, so do not try to measure them!

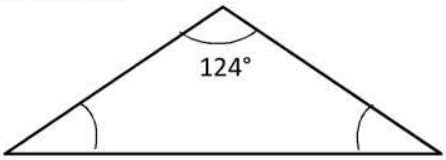
1)



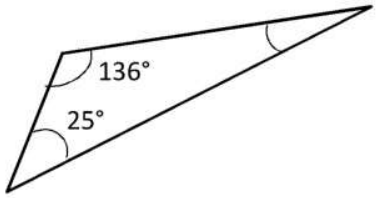
2)



3) Isosceles



4)



MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 8 **Lesson: 2**

SUBJECT: Mathematics

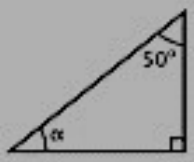
TOPIC: Geometry

Name _____ Date _____

Geometry: Find the Missing Angle in the Triangles (Set 3)

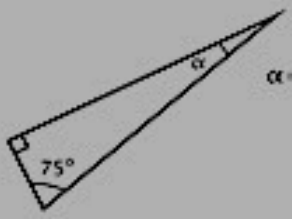
Find the missing angle labelled α (alpha).

1. Right Triangle



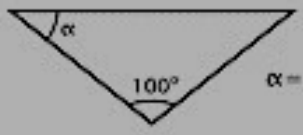
α = _____

2. Right Triangle



α = _____

3. Isosceles Triangle



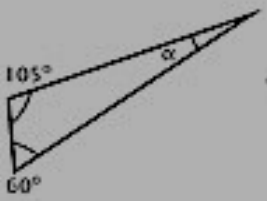
α = _____

4. Scalene Triangle



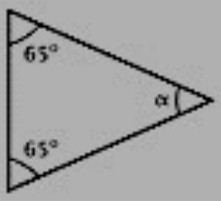
α = _____

5. Scalene Triangle



α = _____

6. Isosceles Triangle



α = _____

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 8 **Lesson: 3**

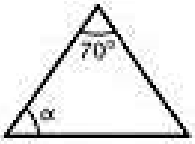
SUBJECT: Mathematics

TOPIC: Geometry

Geometry: Find the Missing Angle in the Triangles (Set 2)

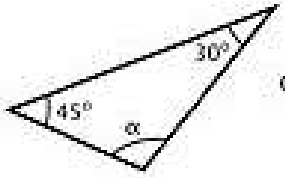
Find the missing angle labelled α (alpha).

1. Isosceles Triangle



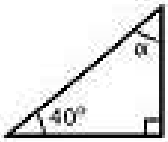
α = _____

2. Scalene Triangle



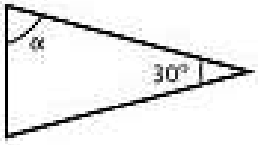
α = _____

3. Right Triangle



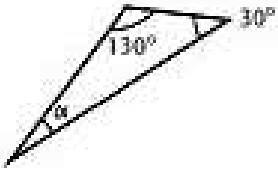
α = _____

4. Isosceles Triangle



α = _____

5. Scalene Triangle



α = _____

6. Right Triangle



α = _____

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

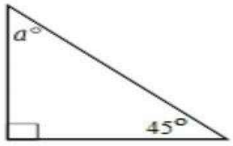
Week: 8 **Lesson: 4**

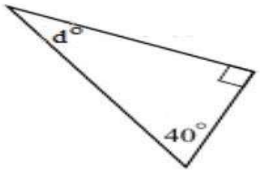
SUBJECT: Mathematics

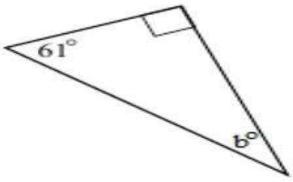
TOPIC: Geometry

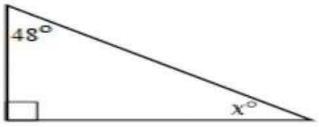
Calculating Missing Angles

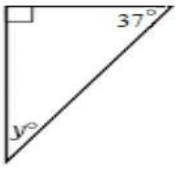
Work out the missing angles. Remember that a right angle is equal to 90°.

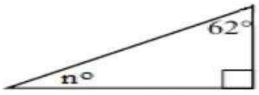
1) 

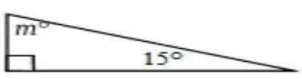
2) 

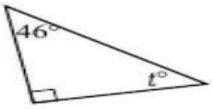
3) 

4) 

5) 

6) 

7) 

8) 

Work out the missing angles. Write them below.

1) a = _____ ° 2) d = _____ ° 3) b = _____ °

4) x = _____ ° 5) y = _____ ° 6) n = _____ °

7) m = _____ ° 8) t = _____ °

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 9 **Lesson: 1**

SUBJECT: Mathematics

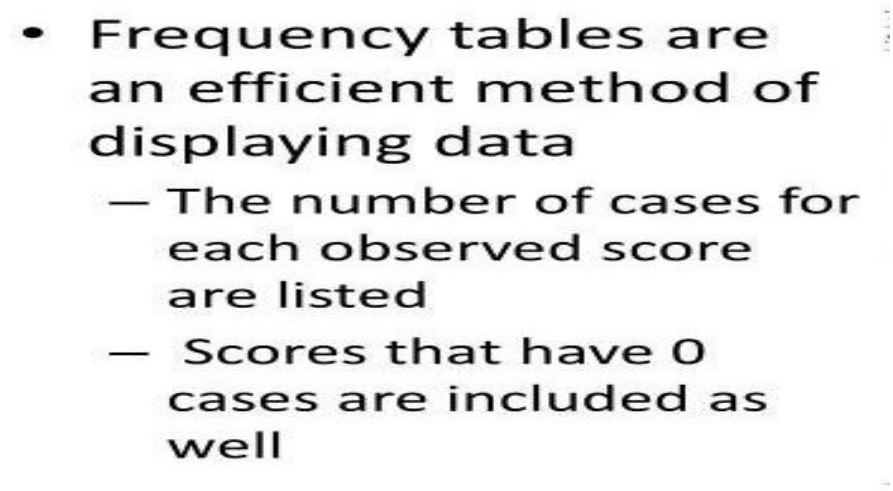
TOPIC: Statistics

Sub-topic: Tally charts and frequency tables

Tally chart and frequency tables

A tally chart is a table with tally marks to show the value of a set of data. A tally chart is one method of collecting data with tally marks. Tally marks are frequencies, occurrences, or total numbers being measured for a specific category in a set of data.

Tally charts are used to collect data quickly and efficiently. Filling in a chart with marks representing numbers is faster than writing out words or figures and the data is collected into sub-groups immediately, making it easy to analyse.



frequency distribution table

A data table that lists a set of scores and their frequency.

score	tally	frequency (f)
1	𝍸	4
2	𝍸 𝍸	9
3	𝍸	6
4	𝍸	7
5	𝍸	3
6	𝍸	2

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 9 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Statistics

Sub-topic: Tally charts and frequency tables

Frequency Tables
WORKSHEET#1

A survey was carried out among 50 children and they were asked about how many siblings they had.
The following data was recorded.

3, 3, 2, 1, 1, 0, 2, 3, 3, 4, 2, 3, 2, 5, 4, 1, 1, 4, 2, 3, 2, 2, 2, 3, 1, 3, 4, 5, 1, 2, 2, 3, 0, 1, 1, 3, 3, 2, 1, 4, 3, 2, 4, 1, 1, 2, 2, 3, 2, 3

Enter the data in the following table by tally marks and note the frequency.

# of Siblings	Tally Marks	Frequency
0		
1		
2		
3		
4		
5		

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 9 **Lesson: 3**

SUBJECT: Mathematics

TOPIC: Statistics

Sub-topic: Tally charts and frequency tables

Bicycle Shop

Name: _____ Score: _____

The following tally chart shows the number of bicycles a bike shop sold during a period of 5 weeks. Use the data to answer the questions.

Week 1	𝍸 𝍸 𝍸 𝍸 ||
Week 2	𝍸 𝍸 𝍸 𝍸 𝍸 ||||
Week 3	𝍸 𝍸 𝍸 |
Week 4	𝍸 𝍸 𝍸
Week 5	𝍸 𝍸 𝍸 𝍸



1) How many bicycles were sold in the second week ?

2) How many bicycles were sold in the last week ?

3) How many bicycles were sold in the first and third week ?

4) How many bicycles were sold in the 5 weeks altogether ?

5) The price of a bicyle is 550 dollars. Calculate how much money the bike shope made on the bicyces and complete the table.

Week 1	Week 2	Week 3	Week 4	Week 5
				$11,000

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 9 **LESSON: 4**

SUBJECT: Mathematics

TOPIC: Statistics

Sub-topic: Tally charts and frequency tables

S1

Tally Marks | Shoe Store

Mindy works in a shoe store in Philadelphia. The tally chart shows how many pairs of shoes of each type were sold by Mindy on Sunday. Use the information from the tally chart to answer the questions.

Items	Tally Marks
 Wedges	𝍸 𝍸 𝍸 𝍸 |
 Sneakers	𝍸 |
 Flip Flops	𝍸 𝍸 ||
 Boots	|||
 Dress Shoes	𝍸 𝍸 𝍸 ||

1) How many wedges were sold by Mindy? _____

2) Which was the most popular shoe type? _____

3) How many pairs of dress shoes did Mindy sell on Sunday? _____

4) How many pairs of shoes did she manage to sell in total? _____

5) Which type of foot wear was sold the least? _____

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 10 **Lesson: 1**

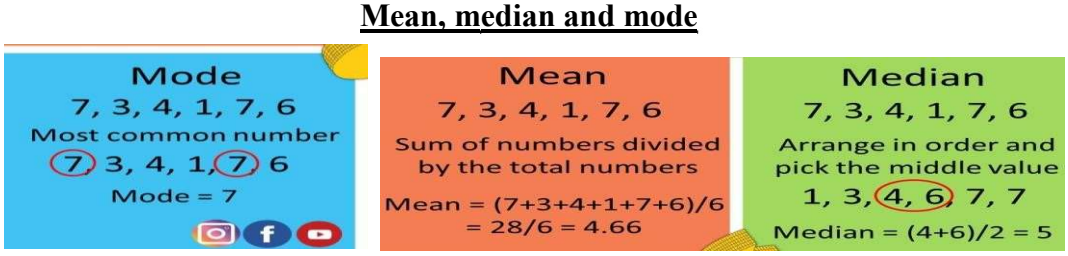
SUBJECT: Mathematics

TOPIC: Statistics

Sub-topic: Mean, median and mode

The median is the "middle" of a sorted list of numbers. How to find the median value?

To find



the median, place the numbers in value order and find the middle.

-E.g. 1. Find the median of 12, 3 and 5 -Put

them in order:

3,5,12

The middle is 5, so the median is 5

-E.g. 2 Find the median of:

3, 13, 7, 5, 21, 23, 39, 23, 40, 23, 14, 12, 56,23, 29 -Put

the numbers in order:

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 39, 40, 56

The median value of this set of numbers is 23. (It doesn't matter that some numbers are the same in the list.)

-Two numbers in the middle:

BUT, with an even amount of numbers things are slightly different.

In that case, find the middle pair of numbers, and then find the value that is half way between them.

This is done by adding them together and

dividing by two. E.g.

3, 13, 7, 5, 21, 23, 40, 23, 14, 12, 56, 23, 29 -

Put the numbers in order, we have:

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 40, 56

There are now fourteen numbers and so we do not have just one middle number, we have a pair of middle numbers:

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 40, 56

21+23=44

Then 44÷2=22

So the mode is simply the number which appears most often.

How to find the Mode?

To fond the mode,

-first put the numbers in order,

-then, count how many of each number -A

number that appears most often is the mode.

Example 1:

3, 7, 5, 13, 20, 23, 39, 23, 40, 23, 14, 12, 56, 23, 29

In order these numbers are:

3, 5, 7, 12, 13, 14, 20, 23, 23, 23, 23, 29, 39, 40, 56

This makes it easy to see which numbers most often. In this case the mode is 23.

Example 2: 19, 8, 29, 35, 19, 28, 15

In order these numbers are

8, 15, 19, 19, 28, 29, 35

Since 19 appear twice and all the rest appear only once, then 19 is the mode.

More than One mode

We can have more than one mode

Example: 1, 3, 3, 3, 4, 4, 6, 6, 6, 9

3 appear three times as does 6. So there are two modes: at 3 and 6. Having two modes is called "bimodal".

Having more than two modes is called "multimodal"

How to find the mean?

The mean is the average of the numbers.

It is easy to calculate: add up all the numbers, then divide by how many numbers there are.

In other words, it is the sum divided by the count.

Example 1: What is the Mean of these numbers?

6, 11, 7

Add the numbers: 6 + 11 + 7 = 24

Divide by how many numbers (there are 3 numbers): 24 / 3 = 8

The Mean is 8

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 10 **Lesson: 2**

SUBJECT: Mathematics

TOPIC: Statistics

Sub-topic: Mean, median and mode

Name Date



FIND THE MEDIAN SHEET 2

Find the median of these data points. Odd number of data points.

Question	Order	Median
1) 5, -1, 2, 7, 6	-1, 2, 5, 6, 7	5
2) 8, -2, 0, 4, 7		
3) 10, -3, 6		
4) 0, 7, 2, -1, 5		
5) -2, 7, 5, -4, 0		
6) 6, -5, 4, -2, 3		
7) -7, -3, -5		
8) 9, -3, 4, -1, 2, -1, 5		
9) -4, 2, -8, -1, -5		
10) -3, -7, -10		
11) 3, -6, -2, -5, 0, 1, -2		
12) -5, 2, -1, -8, -4, 3, -3		
13) -3, -2, -6, -2, 0, -3, -1		
14) 73, 27, 46, 108, 9, 63, 4		
15) -14, -6, -10, -3, -12		
16) 6, -2, -8, 0, 2, -1, -5, 2, -2		

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 10 **Lesson: 3**

SUBJECT: Mathematics

TOPIC: Statistics

Sub-topic: Mean, median and mode

Name Date



FIND THE MODE SHEET 1

Find the mode in each of the sets of data below by ordering the numbers and then finding the most common number.

Data		Ordered list	Mode
1)	3, 12, 7, 10, 7, 2, 3, 7	2, 3, 3, 7, 7, 7, 10, 12	7
2)	4, 9, 5, 8, 1, 4, 10, 3		
3)	15, 23, 21, 35, 23, 28, 12		
4)	74, 72, 71, 72, 76, 74, 72		
5)	15, 6, 2, 13, 5, 5, 1, 7, 11		
6)	14, 18, 13, 12, 13, 15, 18, 18		
7)	9, 11, 5, 3, 5, 7, 9, 3, 6, 5		
8)	730, 734, 732, 730, 735, 737		
9)	9, 1, 5, 3, 3, 1, 2, 7, 3, 5, 8		
10)	58, 72, 64, 56, 58, 72, 58, 80		
11)	814, 823, 818, 823, 820, 811		
12)	0.5, 0.3, 0.6, 0.3, 0.2, 0.9, 0.1		
13)	1.5, 1.3, 1.8, 2.1, 1.3, 1.9, 2.5		
14)	5.3, 5.7, 5.2, 5.7, 5.3, 5.4, 5.7		
15)	71, 67, 68, 67, 70, 71, 68, 71		
16)	5, 3, 2, 3, 5, 4, 1, 2, 3, 5, 7, 5		

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 10 **Lesson: 4**

SUBJECT: Mathematics

TOPIC: Statistics

Sub-topic: Mean, median and mode

Find the mean of these data points.

Question	Total	Mean
1) 5, 2, 2	9	9 ÷ 3 = 3
2) 5, 4, 3		
3) 14, 10, 12		
4) 2, 10, 3		
5) 8, 0, 10		
6) 4, 1, 4		
7) 12, 7, 2		
8) 2, 5, 11		
9) 14, 3, 7		
10) 20, 3, 4		
11) 2, 5, 1, 0		
12) 4, 1, 3, 4		
13) 7, 3, 0, 10		
14) 1, 2, 3, 2		
15) 10, 2, 1, 3		
16) 10, 20, 10, 40		

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 10 **Lesson: 5**

SUBJECT: Mathematics

TOPIC: Statistics

Sub-topic: Mean, median and mode

Calculate the mean, mode and median

35, 56, 34, 44, 52, 12, 34, 45 Mean =_____ Median = _____ Mode = ___ _____	
24, 34, 32, 16, 45, 38, 28 Mean =_____ Median = _____ Mode = _____	
86, 24, 65, 65, 24, 24 Mean =_____ Median = _____ Mode = _____	

MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

Week: 11

SUBJECT: Mathematics

Annual Examination

Answer all questions

1. Find the mean, mode and median for the list of numbers below.

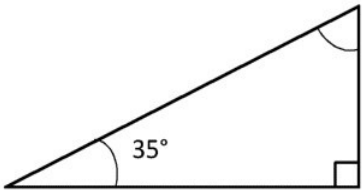
	List of values	Mean	Median	Mode
(1)	8, 10, 14, 17, 26	____	____	____
(2)	12, 14, 18, 19, 20, 22, 28	____	____	____

2. What is the name of the shape below?



a) kite b) square c) trapezium d) rhombus

3. Calculate the missing angle.



4. Multiply the following by carrying.

(a) 132 x 24

(b) 182 x 11

5. Expand and multiply

(a) 231 x 23

(b) 289 x 16

6. Divide by grouping

(a) 20 ÷ 2

(b) 30 ÷ 5

7. Divide by the long division method

(a) 5.64 ÷12

(b) 5.69 ÷ 12

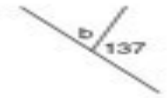
8. Find the compliment of each angle.

(a) 40◦

(b) 62◦

9. Find the value of the missing angles.

b)



c)



10. Change from cm to mm

(a) 6 cm

(b) 9 cm

11. Change from m to cm

(a) 2.3 m

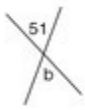
(b) 2

12. change from km to m

(a) 5.2 km

(b) 1.5 km

13. Find the value of the missing angles





14. A _____ is a polygon with 3 sides.

(a) Decagon

(b) Triangle

(c) Quadrilateral

(d) pentagon

15. A _____ is a polygon with 4 sides.

(a) Decagon

(b) octagon

(c) Quadrilateral

(d) hexagon

16. A _____ is a polygon with 8 sides.

(a) Decagon

(b) Triangle

(c) Quadrilateral

(d) octagon

17. A _____ is a polygon with 10 sides.

(a) Decagon

(b) hexagon

(c) heptagon

(d) octagon

18. An equilateral triangle has _____ sides equal.

(a) all

(b) 2

(c) 1

(d) none

19. How many angles are equal on a scalene triangle

(a) all

(b) 2

(c) 1

(d) none

20. Multiply 6.24 x 4.5

(a) 20.08

(b) 20. 80

(c) 28.08

(d) 28.80

21. Angles on a straight line =

(a) 90◦

(b) 180◦

(c) 60◦

(d) 30◦

22. An obtuse angle is less than _____ but greater than_____.

23. A reflex angle is greater than ____ but less than _____.

24. A right angle is equal to _____.

25. The sum of supplementary angles equals _____.

26. The sum of complementary angles equals _____.

27. Change from m to km

(a) 8000 m

(b) 2000 m

28. Change from mm to cm

(a) 60 mm

(b) 90 mm

29. Change from m to km

(a) 1300

(b) 3800

30. Using a protractor and a ruler draw a right angle and a reflex angle.

End of Test