



TOM NEWBY SCHOOL NOVEMBER TEST



1

Subject	Mathematics	Examiner	Miss Klemp
Date	November 2021	Total marks	75
Session		Duration	2 hr
Grade	7	Moderator	Mrs Fourie
Special instructions/ Equipment	No calculator		
This assessment has been compiled using notes and information contained in the Tom Newby School resource material. The marking memorandum has been compiled accordingly. While alternative responses will be given due acknowledgement, the official memorandum will be considered a priority document to ensure uniformity of marking.			

Name:	Surname:	Class:
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Instructions:

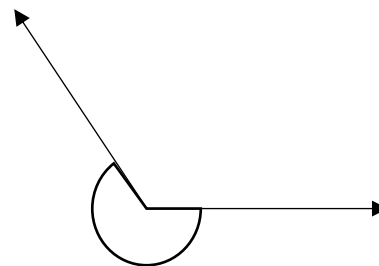
- Answer all questions.
- Read each question's instructions carefully.
- Look at the mark allocation.
- Write neatly and legibly.
- NO calculators.
- Not all diagrams are drawn to scale.

QUESTION 1: Multiple Choice [10]

Choose the correct answer and write the letter in the answer grid at the end of Question 1.

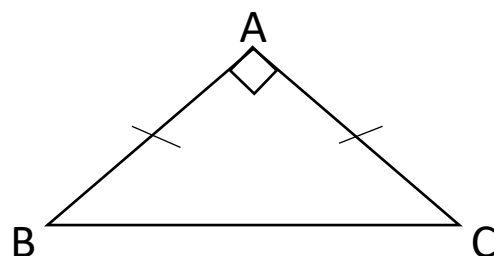
1.1. The angle in the diagram is?

- a) Obtuse angle.
- b) Acute angle.
- c) Reflex angle.
- d) Revolution.



1.2. Triangle ABC is called?

- a) Equilateral right-angled triangle.
- b) Scalene right-angled triangle.
- c) Right-angled isosceles triangle.
- d) Obtuse-angled isosceles triangle.



1.3. If the area of a square = 81cm^2 , the perimeter of the square is _____ cm.

- a) 81
- b) 36
- c) 27
- d) 324

1.4. $9,35\text{km} =$ _____ m.

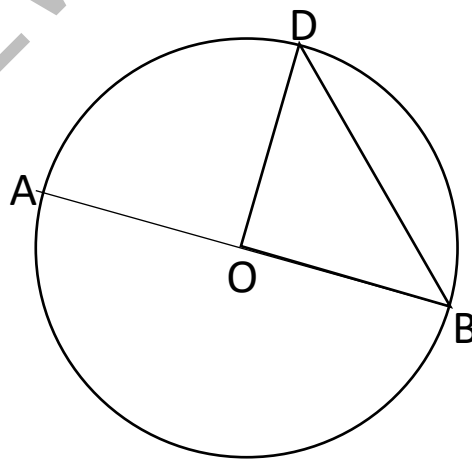
- a) 93,5.
- b) 9350
- c) 93500
- d) 0,0935.

1.5. The volume of a rectangular prism with $l = 7,5\text{cm}$; $b = 8\text{cm}$; $h = 10\text{cm}$ is?

- a) 600cm^3
- b) $25,5\text{cm}^3$
- c) 480cm^3
- d) 870cm^3

1.6. Which one of the given statements is correct?

- a) $AB = BD$.
- b) $AB = 2 \times OD$.
- c) AB is a radius.
- d) BD is a diameter.



1.7. If $\gamma - 5 = -12$, then $\gamma =$ _____.

- a) -17.
- b) 7.
- c) -7.
- d) 2.

1.8. For the data items, 6; 4; 5; 3; 7; 4; 9; 2; the median is?

- a) 4.
- b) $4\frac{1}{2}$.
- c) 5.
- d) $5\frac{1}{2}$

1.9. A 2-D shape that has 7 equal sides is called _____.

- a) Regular Pentagon.
- b) Regular Heptagon.
- c) Irregular Heptagon.
- d) Regular Nonagon.

1.10. A kite has _____ line/s of symmetry.

- a) 0.
- b) 1.
- c) 2.
- d) 4.

ANSWER GRID FOR QUESTION 1

1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10

(10)

QUESTION 2: Algebra [20]

2.1. Label the following:

(3)

$$5e + 7$$

- a) _____
- b) _____
- c) _____

2.2. If $c = 4$ and $e = 5$, calculate the value of:

a) $3c - 2e + 4 =$ (3)

b) $e^2 - c^2 =$ (2)

2.3. Solve for γ . Show all working out.

a) $6\gamma + 7 = 55$ (3)

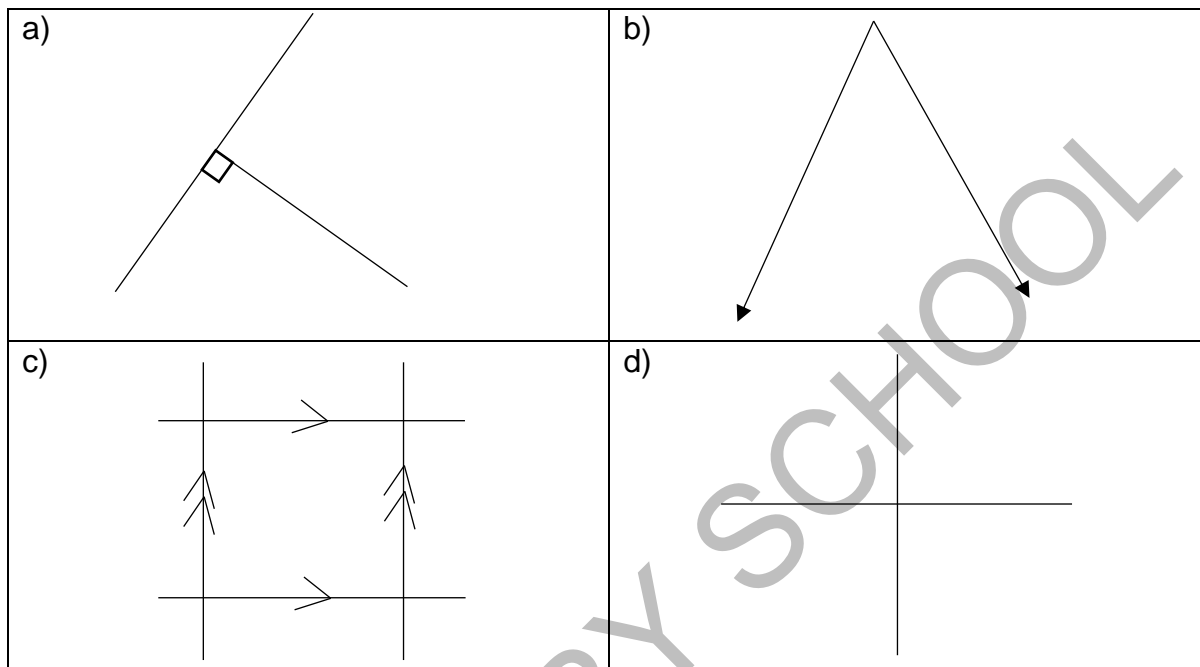
b) $\frac{\gamma}{3} - 2 = 1$ (3)

c) $3 - 2\gamma = -10$ (3)

d) $\frac{4}{\gamma} + 2 = 0$ (3)

Question 3: Geometry [12]

3.1. Determine which lines are perpendicular or parallel or neither in the following diagrams. (4)



- a) _____
- b) _____
- c) _____
- d) _____

3.2. What type of angle am I? (2)

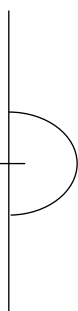
e.g . Acute angle (Do not measure the sizes)

a)



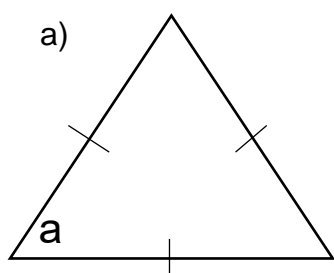
a) _____

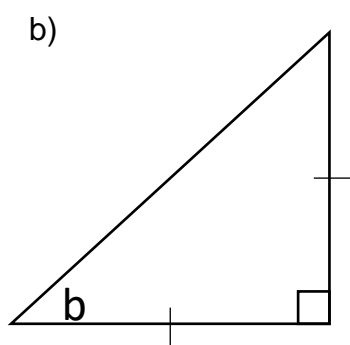
b)

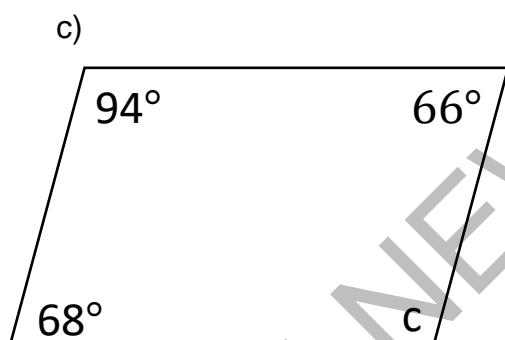


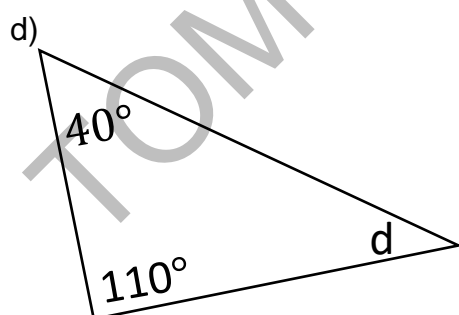
b) _____

3.3. The shapes below are not drawn to scale, so you cannot use a protractor to work out the answers. **Calculate** the size of the missing angles. (4)









3.4. a) What are two or more figures which have the same size and shape called? _____ (1)

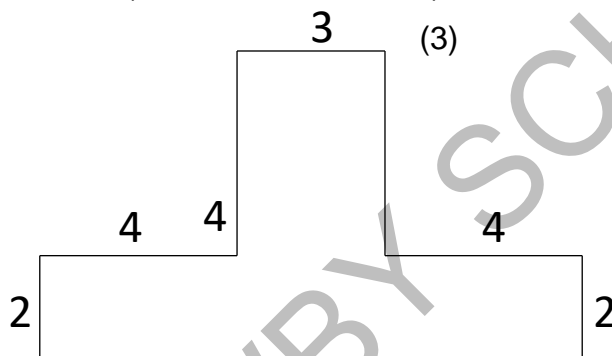
b) What are two or more figures which have the same shape but differ in size called? _____ (1)

QUESTION 4: Area, Perimeter, Surface Area, Volume [16]

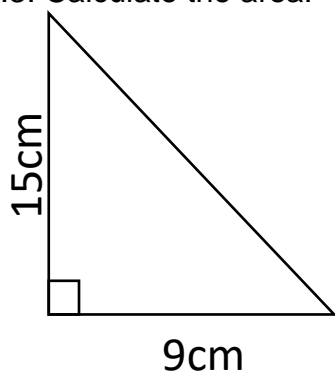
Remember to start each calculation with a formula.

4.1. ABCD is a rectangle. Calculate the perimeter in meters, if $AB = 7,25$ and $AD = 2,5$. (3)

4.2. The shape is not drawn to scale. Calculate the area of the shape by looking at all the given measurements. (Measurements in cm). (3)



4.3. Calculate the area. (3)



4.4. Calculate the Surface Area of the Rectangular Prism: (4)

Length: 18m

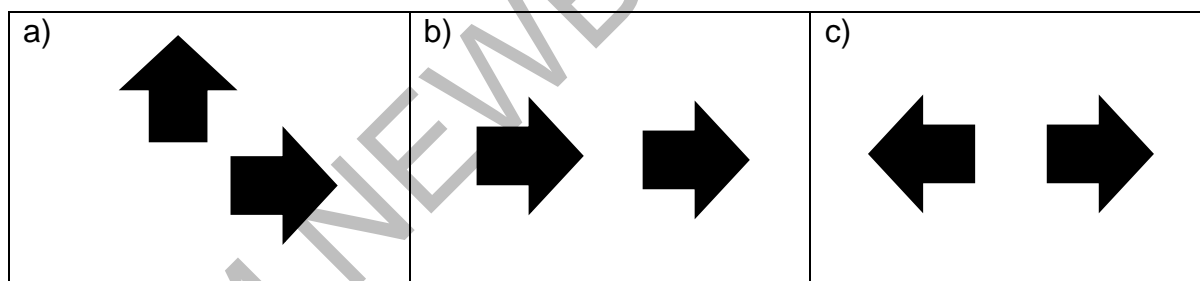
Breadth: 6m

Height: 2m

4.5. If the volume of a cube is 216cm^3 , what is the length of one side? (3)

QUESTION 5: Transformation [8]

5.1. Consider the pairs of shapes below. Identify the transformation in each pair. (3)

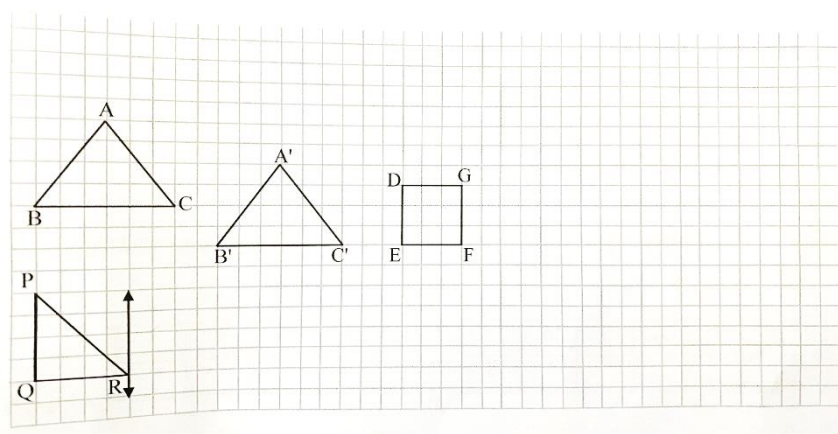


a) _____

b) _____

c) _____

5.2. Use the quad paper to complete the following:



- a) Describe the translation of $\triangle ABC$ onto its image $\triangle A'B'C'$. (1)
- b) Enlarge DEFG by a scale factor 3. (2)
- c) Draw the reflection of $\triangle HJK$ across the vertical line. (2)

QUESTION 6: Statistics [9]

6.1. Length in cm:

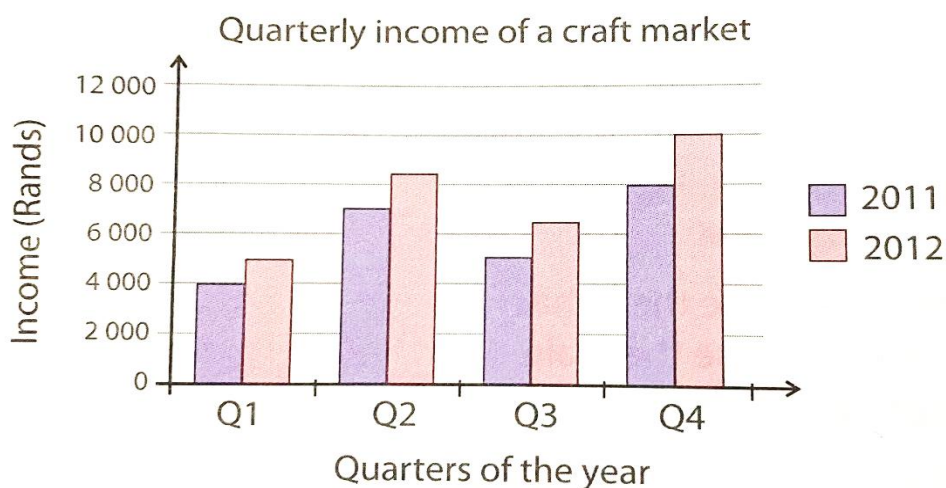
121; 116; 115; 122; 116; 120; 116.

Calculate: (4)

- a) Mode: _____
- b) Median: _____
- c) Range: _____
- d) Mean: _____

Working out:

6.2. Mrs Serengeti runs a craft market. She has kept track of all the income that the craft market has made over the past 2 years. Her quarterly figures are shown on the graph. Quarter = 3 months.



a) Which quarter has the best sales in 2012? (1)

b) What is the difference between the 1st and 4th quarter in 2011? (1)

c) Which quarter showed the biggest difference between 2011 and 2012? (1)

d) Make a prediction about the future income of the craft market. (2)

Total: 75

TOM NEWBY SCHOOL

PERFORMANCE ANALYSIS
GRADE 7 MATHS
NOVEMBER TEST 2021
(For teacher's use only)

Name: _____ Class: _____

QUESTION	1	2	3	4	5	6
POSSIBLE MARK	10	20	12	16	8	9
LEARNER'S MARK						
MODERATED MARK						