HT
YR/AM
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CF/JG
KC
MK/KSi
KSa

NAME: _____

CLASS: 7MTH_____

CHERRYBROOK TECHNOLOGY HIGH SCHOOL

2017

YEAR 7

Yearly Examination

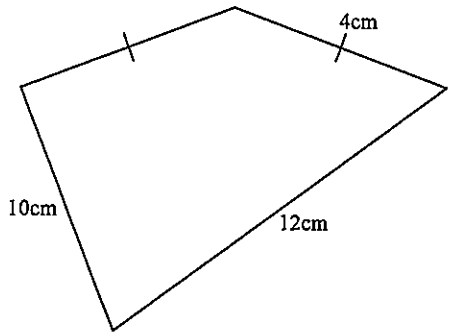
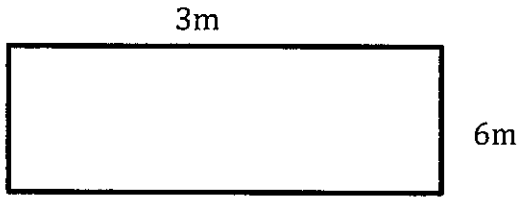
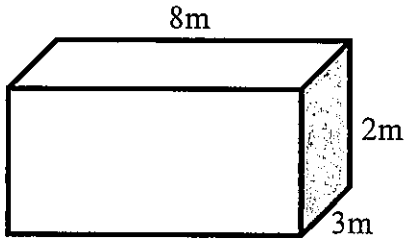
Time allowed: 45 minutes (NO READING TIME)

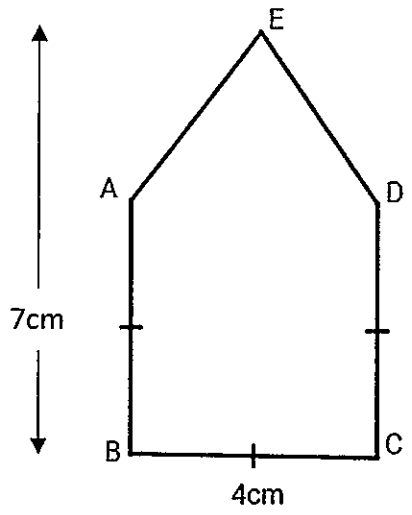
DIRECTIONS TO CANDIDATES:

- ◊ Write your name and class in the space provided at the top of this page.
- ◊ Attempt all questions in the space provided.
- ◊ Calculators are NOT allowed to be used.
- ◊ All necessary working should be shown. Full marks may not be awarded for careless or badly arranged work.

Section	Marks
Perimeter, Area, Volume	/13
The Number Plane	/10
Mixed Topics	/43
Total	/66

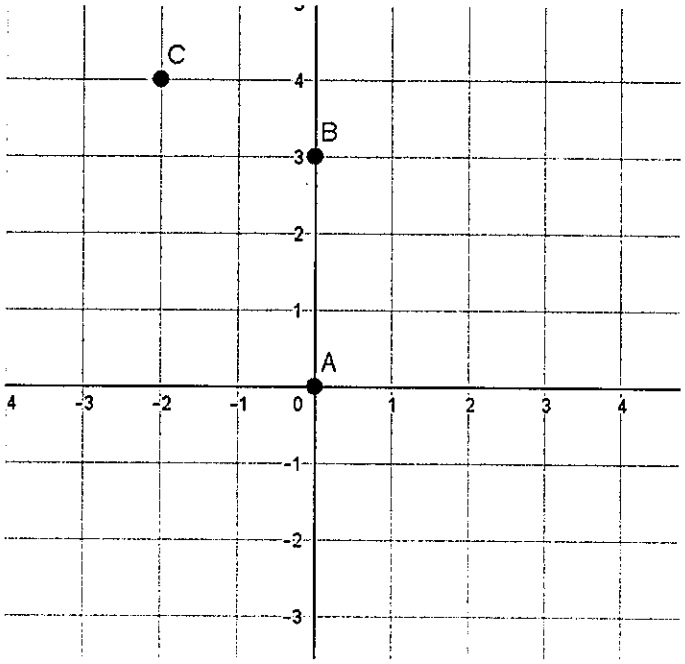
Section 1 – Perimeter, Area and Volume Total: _____ /13

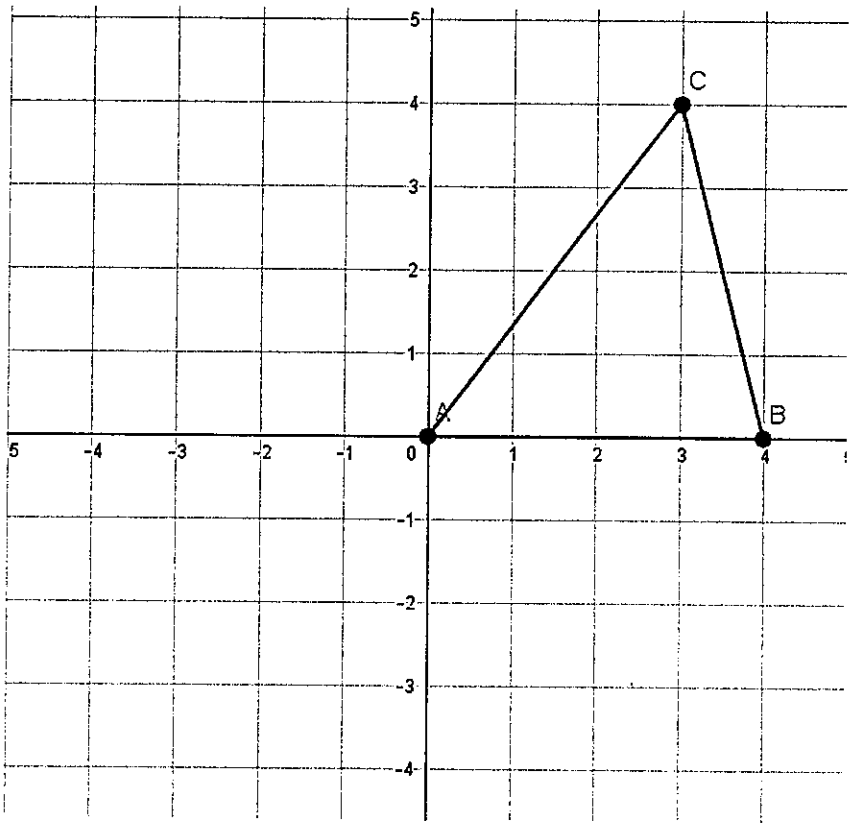
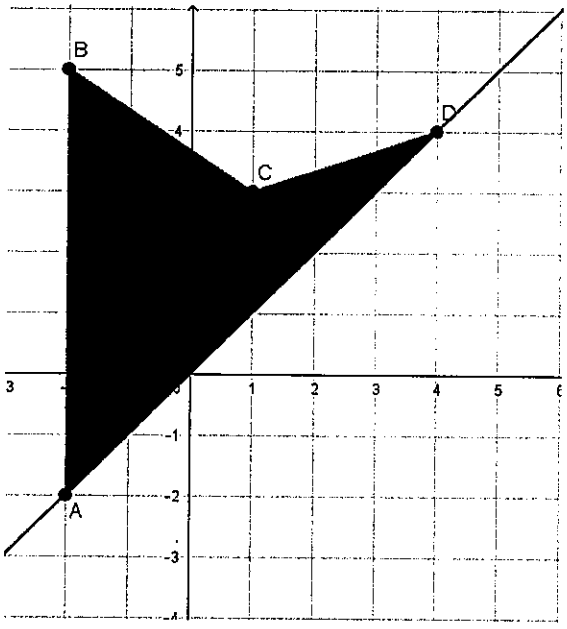
	Question	Working/Answer	Marks
1	Find the perimeter.  		1
2	Find the area of the rectangle.  		1
3	**(a)** Find the volume of the shape below.  **(b)** What is its capacity in litres?	**(a)** **(b)**	1 1
4	Convert $5cm^2$ into mm^2		1

5	Find the area of the shape below.  		**3**
6	A cube with edge length 50 centimetres is cut up into cubes with edge length 5 centimetres. If all these cubes were stacked one on top of the other to form a tower, what would be the height of the tower in metres?		**3**
7	A rectangle has an area of $72cm^2$. The length is twice the width. Find the perimeter of the rectangle if the length and width are integers (whole numbers).		**2**

Section 2 – The Number Plane

Total: _____/10

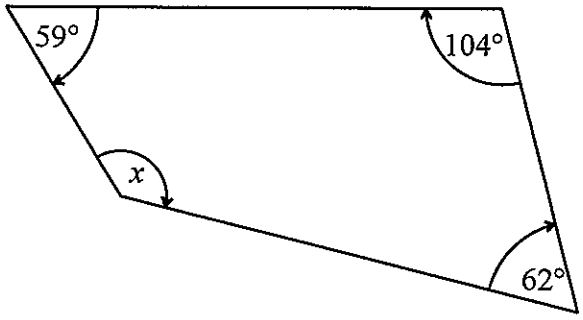
	Question	Working/Answer	Marks
1	 For the number plane above: **(a)** Label the *x* and *y* axes. **(b)** Write down the coordinates of B and C **(c)** On the number plane above, plot the point D (-2, 1) **(d)** Join A, B, C and D. What is the name of the shape you have just formed? **(e)** Find the area of this shape in units^2.	**(a)** On Number Plane **(b)** B = C = **(c)** On Number Plane **(d)** **(e)**	**1** **2** **1** **1** **1**

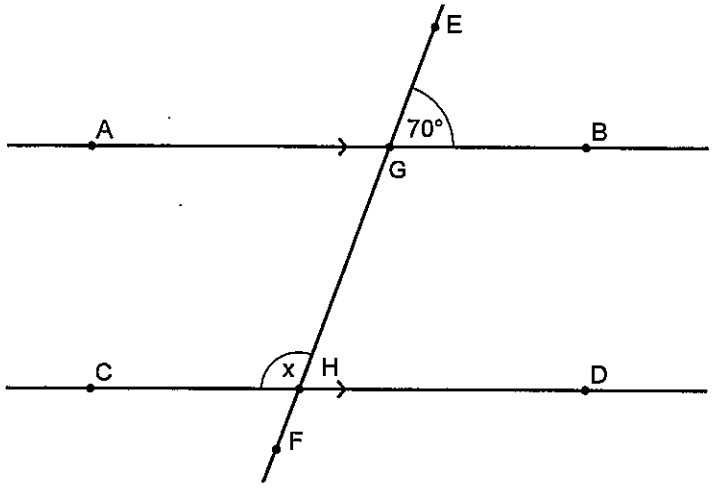
2	What is the name of the point (0, 0) in the Number Plane?		**1**
3	Rotate the shape below 90° clockwise about the origin 		**1**
4			
	(a) Reflect the shape ABCD across the line above		**1**
	(b) Write the coordinates of the new position of **B**		**1**

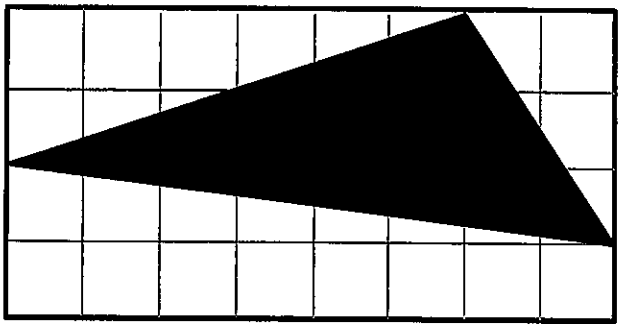
Section 3 – Mixed Topics Total: _____/43

	Question	Working/Answer	Marks
1	Choose a word from the word bank to fill in the blanks to make a correct sentence *prime two mean median tenths octagon hexagon hundredths three complementary square composite odd quadrilateral supplementary equal four units* An ..... is a polygon with eight sides. The place value of the 3 in 64.32 is 3 ..... A number is divisible by 8 if the last ..... digits are divisible by 8 Alternate angles on parallel lines are ..... 17, 3, 2, 29 are all examples of ..... numbers		**5**
2	Write three million, eight hundred thousand and five using numerals		**1**
3	Put the following into ascending order $42\%,\ 0.44,\ \frac{2}{5},\ 0.401$		**1**
4	Find the highest common factor of 24 and 28		**2**

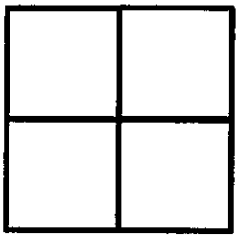
5	Evaluate **(i)** $7-(-8)$ **(ii)** 1.2×0.004 **(iii)** $9.8-4.21$ **(iv)** 3^4 **(v)** $(-72)\div 8$ **(vi)** $9+10\times 2$	**(i)** **(ii)** **(iii)** **(iv)** **(v)** **(vi)**	**1** **1** **1** **1** **1** **1**
6	Simplify **(i)** $3y+4y$ **(ii)** $4x+3y-5y+6x$ **(iii)** $6a\times 3ab$	(i) **(ii)** **(iii)**	**1** **2** **1**

7	Evaluate $\frac{3}{5} + \frac{2}{3}$ Leave your answer as an improper fraction		**2**
8	Find 45% of \$500		**2**
9	Give a reason why $x = 135°$ 		**1**
10	Write $\frac{25}{6}$ as a mixed numeral		**1**
11	Solve (a) $\frac{x}{7} = 14$ (b) $3a + 1 = 25$	(a) (b)	**1** **2**

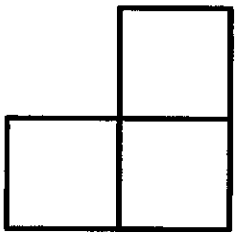
12	Substitute $x = -3$ into $x^2 - 4x$		**2**
13	Write $\frac{4}{7}$ as a decimal correct to 3 decimal places		**2**
14	Find x, **<u>show all working</u>**, giving reasons 		**2**
15	Amelia and Tyler are sharing a pizza. Amelia eats half of the pizza and Tyler takes $\frac{2}{3}$ of what is left. What fraction of the whole pizza remains?		**1**

16	What fraction of the rectangle is shaded? 		**2**
17	Chelsea has less than 100 balls in a bag. Half of them are red 15% of them are green 0.2 are blue and the rest are black. **(a)** How many balls ***might*** be in the bag? **(b)** Describe all possible solutions to the problem.	**(a)** **(b)**	**1** **1**
18	I am thinking of two numbers A and B. When I divide A by 7, it leaves a remainder of 4. When I divide B by 7, it leaves a remainder of 5. Find the remainder when I divide A + B by 7		**2**

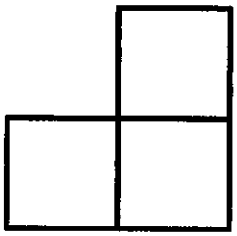
19 The top, side and front view of a solid shape are shown below.



Top view



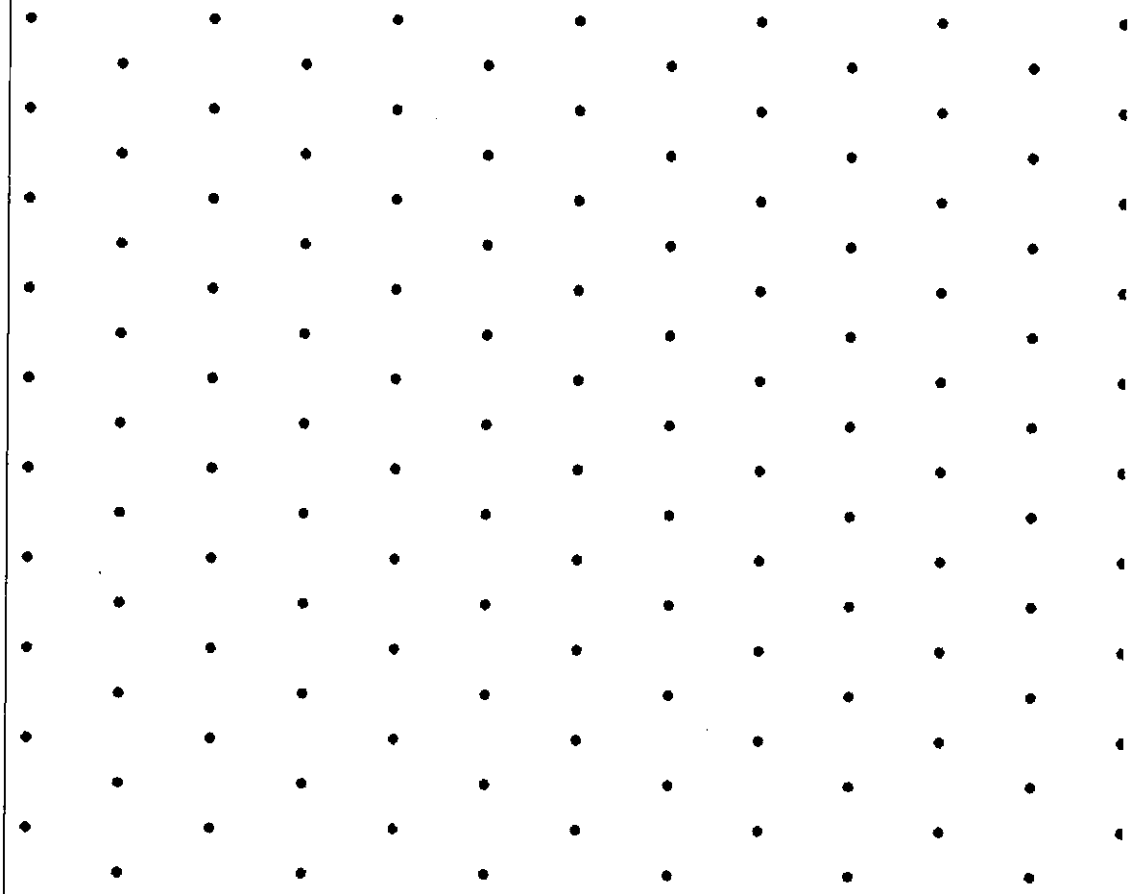
Front view



View from the right hand side

(a) How many cubes are required to build the shape? **1**

(b) On the isometric dot paper below, draw the solid shape it would make. **1**



End of Examination