B - KS
C - LP
E - EE
G - KC
H - GS
K - BS
L – HT/JI
N - KS
O - BS
R - BP
T - JJ
Y - MK
W - BK

NAME: _____

CLASS: 7MTH19____

MARK: _____ /59

CHERRYBROOK TECHNOLOGY HIGH SCHOOL

2019

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.
- Given diagrams are not drawn to scale.

Section	Marks
Decimals	/18
Area and Volume	/14
The Number Plane	/9
Mixed Topics	/18
Total	/59

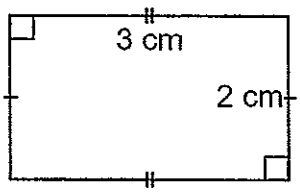
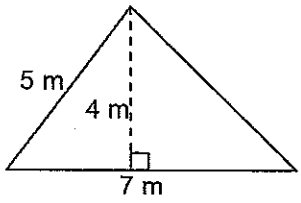
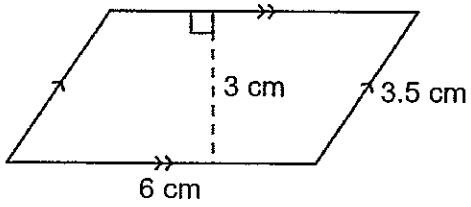
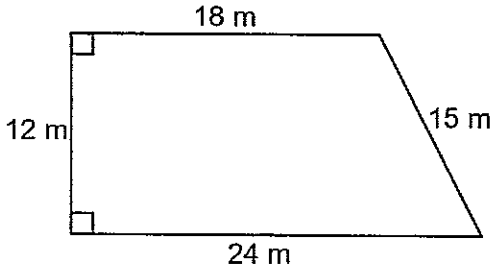
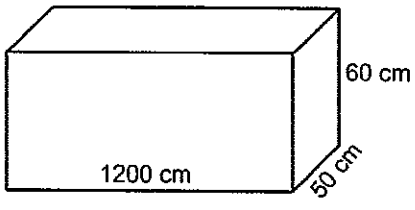
Decimals

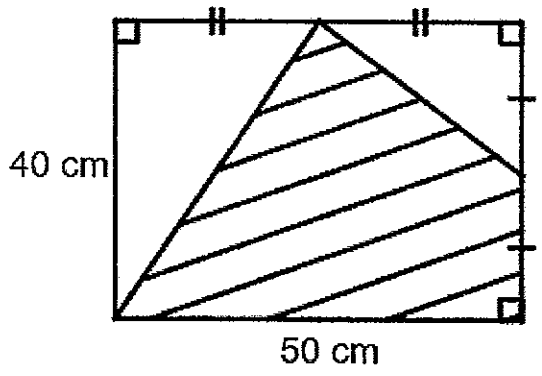
	Question	Working / Answer	Marks
1	Arrange the following numbers in ascending order: 1.9, 1.19, 9.1, 1.09		1
2	Convert the decimal 0.23 to a fraction.		1
3	Convert 8% to a decimal.		1
4	Find the sum of 1.7 and 0.16		1
5	Find the difference between 5.2 and 2.04		1
6	Evaluate $13.9 \div 1000$		1
7	Evaluate 3.51×2.1		1
8	A carpenter wishes to cut a piece of wood 81.2 cm long into five equal pieces. How long is each piece?		2

9	Johnny would like to buy as many pens as possible for his classmates as gifts. If he has \$15 to spend and each pen costs \$1.35, how many pens can he buy?		**2**
10	Write the recurring decimal 0.191919... using dot notation.		**1**
11	Round 1.34567 to 2 decimal places.		**1**
12	Complete the pattern:	9.7, 9.55, 9.4, _____	**1**
13	Petrol costs \$1.48 per litre. Matt filled up his car with 40 L of petrol. a) How much will it cost Matt to fill up his car? b) If he paid \$100, how much change should he get?	a) b)	**1** **1**
14	Evaluate $\frac{(0.2)^3}{0.4}$		**2**

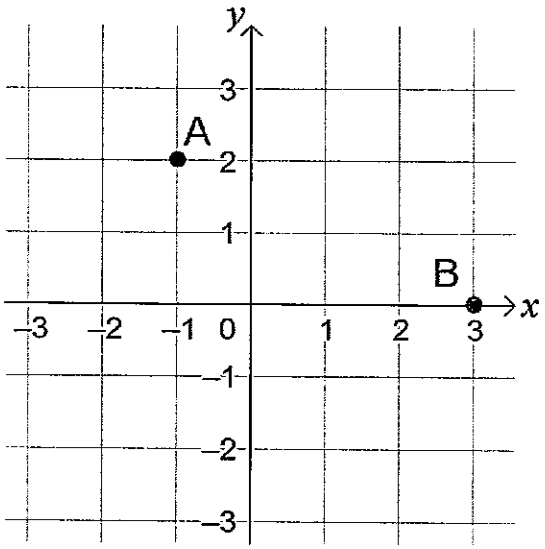
Area and Volume

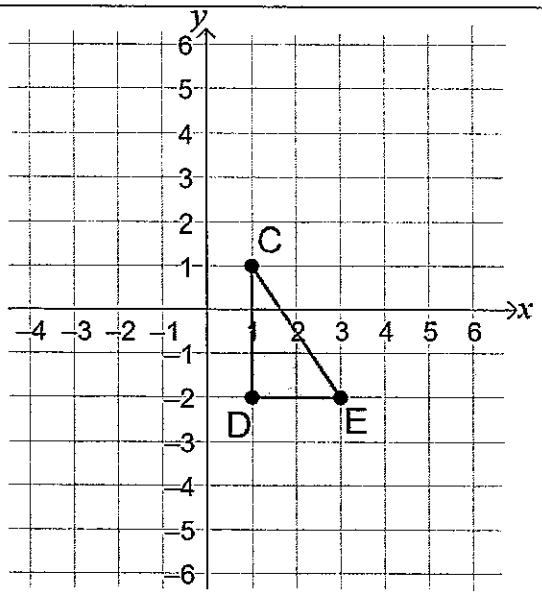
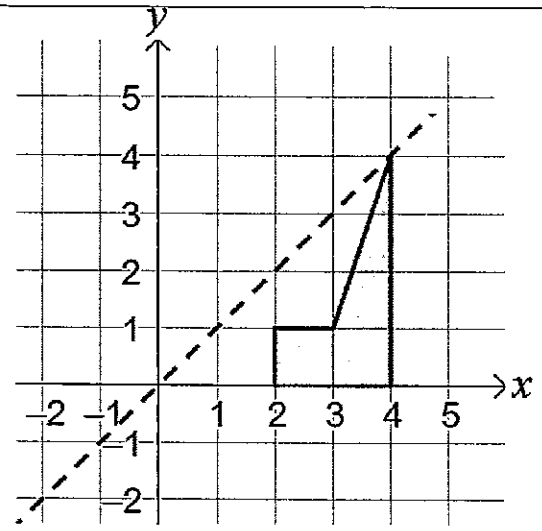
	Question	Working / Answer	Marks
15	The distance between CTHS and Cherrybrook subway station is 2.8 km. What is this in metres?		**1**
16	The area of Mary's room is 9.4 m^2. What is this in square centimetres?		**1**

17	Calculate the perimeter of the following rectangle.  		**1**
18	Calculate the area of the following triangle.  		**1**
19	The mass of a car is 1.84 tonnes. Convert this to kg.		**1**
20	Calculate the area of the following shape.  		**1**
21	Bob purchased a block of land with the following shape. Calculate the area of his land.  		**3**
22	A large box in the shape of a rectangular prism as shown below.  a) Calculate the volume in m^3. b) Calculate its capacity in litres.	a) b)	**2** **1**

23	Find the area of the shaded section.  		2

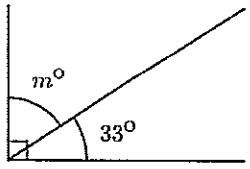
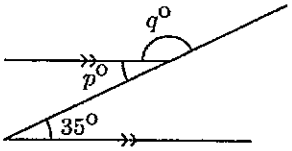
The Number Plane

Question		Working / Answer	Marks
24	What is the coordinates of the ***origin***.		1
25	 a) Write down the coordinates of the points A and B. A = B = b) On the number plane above, plot and label the point C (1, 1). c) The table of values below are coordinates of three points. Complete the table so that they form a straight line. x: 0, 1, 2 y: -3, -1,		2 1 1 1

26	Translate the triangle CDE 3 units left and 2 units up. Label the vertices (corners) of the image with C', D' and E'.		**2**
27	Reflect the given shape across the dotted line.		**2**

Mixed questions

	Question	Working / Answer	Marks
28	Evaluate: a) $-8 + (-2)$ b) $12 - 4 \times (5 - 15) \div (-2)$	a) b)	**1** **2**

29	Find the value of m.  		**1**
30	Find the values of the angles: a) p b) q  	a) b)	**1** **1**
31	Find 5% of \$120.		**1**
32	Calculate a) $\frac{9}{20} - \frac{1}{4}$ b) $\frac{9}{10} \times \frac{2}{3}$	a) b)	**2** **1**
33	Which quadrilaterals have perpendicular diagonals? Write down all that apply from the following list. Square, rectangle, parallelogram, rhombus, kite, trapezium		**1**
34	Simplify $2x + 3x - x$.		**1**

35	Solve $\frac{x-11}{4} = 8$.		**2**
36	\$800 is shared among three friends. Amy gets \$8 more than Ben who gets \$16 more than Charlie. How much does Ben receive?		**2**
37	Write two positive numbers less than 50 which are multiples of 8 and have common factors of 3 and 4.		**2**

- End of Yearly Examination -

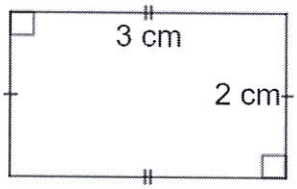
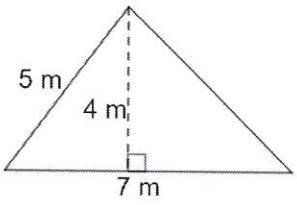
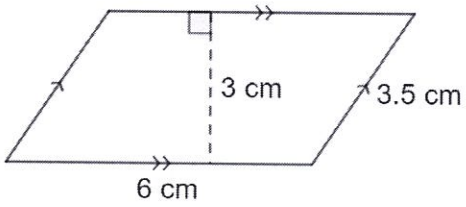
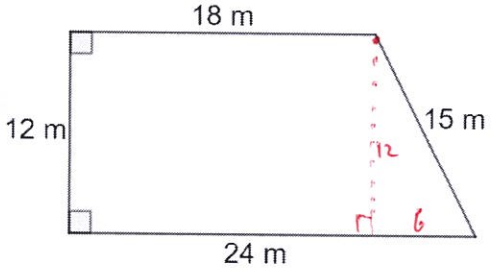
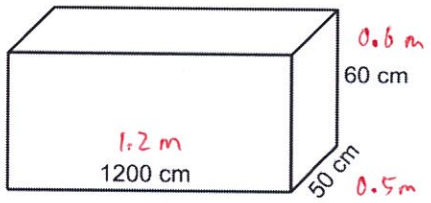
Decimals

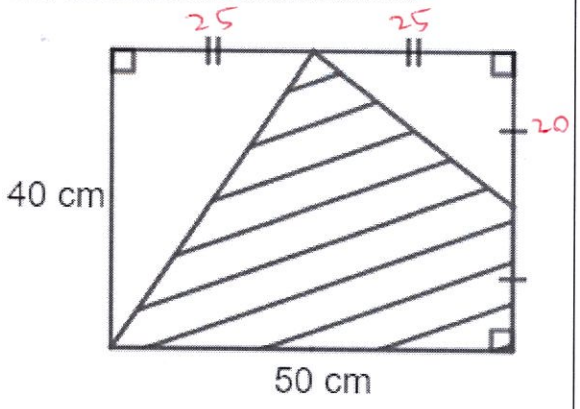
	Question	Working / Answer	Marks
1	Arrange the following numbers in ascending order: 1.9, 1.19, 9.1, 1.09	1.09, 1.19, 1.9, 9.1	1
2	Convert the decimal 0.23 to a fraction.	$\frac{23}{100}$	1
3	Convert 8% to a decimal.	0.08	1
4	Find the sum of 1.7 and 0.16	1.70 + 0.16 1.86	1
5	Find the difference between 5.2 and 2.04	5.20 - 2.04 3.16	1
6	Evaluate $13.9 \div 1000$	0.0139	1
7	Evaluate 3.51×2.1	351 × 21 351 7020 7.371	1
8	A carpenter wishes to cut a piece of wood 81.2 cm long into five equal pieces. How long is each piece?	16.24 5)81.20 5 31 30 12 10 20 20 Each piece is 16.24 cm long.	2

9	Johnny would like to buy as many pens as possible for his classmates as gifts. If he has \$15 to spend and each pen costs \$1.35, how many pens can he buy?	$15 \div 1.35$ $= 1500 \div 135$ 11 135) 1500 135 150 135 15 He can buy 11 pens.	**2**
10	Write the recurring decimal 0.191919… using either the bar or dot notation.	$0.\dot{1}\dot{9}$ or $0.\overline{19}$	**1**
11	Round 1.34567 to 2 decimal places.	1.35	**1**
12	Complete the pattern:	9.7, 9.55, 9.4, 9.25.	**1**
13	Petrol costs \$1.48 per litre. Matt filled up his car with 40 L of petrol. a) How much will it cost Matt to fill up his car? b) If he paid \$100, how much change should he get?	a) 14.8×4 $= \$59.20$ 148 $\times 4$ 592 b) $100 - 59.20$ $= \$40.80$	**1** **1**
14	Evaluate $\frac{(0.2)^3}{0.4}$	$\frac{0.008}{0.4}$ $= \frac{0.08}{4}$ $= 0.02$	**2**

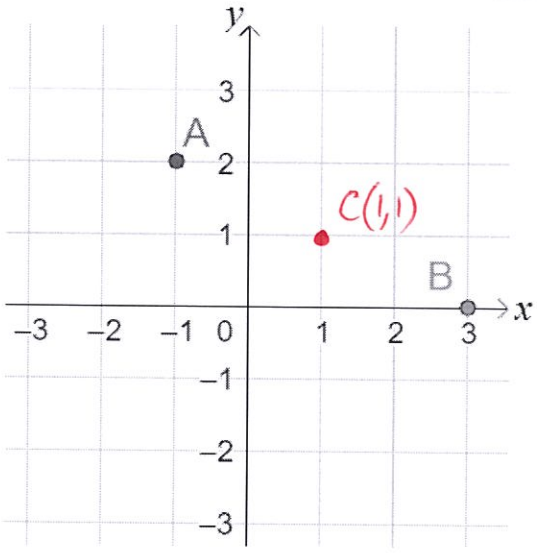
Area and Volume

	Question	Working / Answer	Marks
15	The distance between CTHS and Cherrybrook subway station is 2.8 km. What is this in metres?	2800 m	**1**
16	The area of Mary's room is 9.4 m^2. What is this in square centimetres?	9.4×10000 $= 94000\ cm^2$	**1**

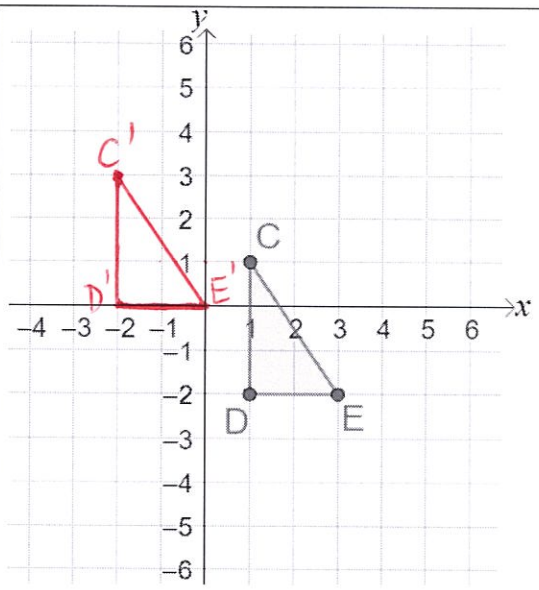
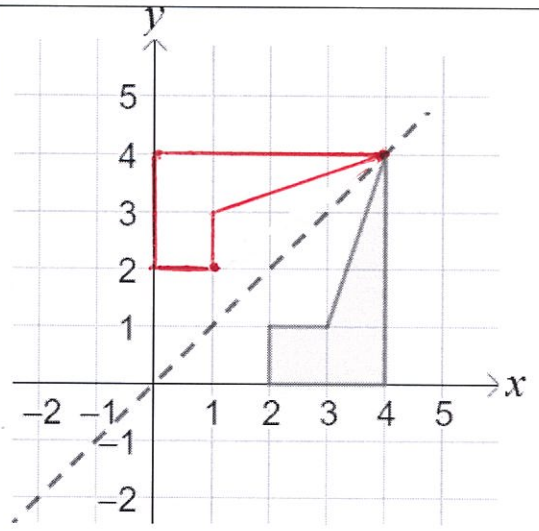
17	Calculate the perimeter of the following rectangle.  	$P = 2(3+2)$ $= 12$ cm	**1**
18	Calculate the area of the following triangle.  	$A = \frac{1}{2} \times 7 \times 4$ $= 14$ m^2	**1**
19	The mass of a car is 1.84 tonnes. Convert this to kg.	1840 kg	**1**
20	Calculate the area of the following shape.  	$A = bh$ $= 6 \times 3$ $= 18$ cm^2	**1**
21	Bob purchased a block of land with the following shape. Calculate the area of his land.  	$A = 12 \times 18 + \frac{1}{2} \times 6 \times 12$ $= 216 + 36$ $= 252$ m^2	**3**
22	A large box in the shape of a rectangular prism as shown below.  a) Calculate the volume in m^3. b) Calculate its capacity in litres.	a) $V = 1.2 \times 0.5 \times 0.6$ $= 0.36$ m^3 b) Capacity $= 0.36 \times 1000$ L $= 360$ L	**2** **1**

23	Find the area of the shaded section.  	$A = 40 \times 50 - \left(\frac{1}{2} \times 40 \times 25 + \frac{1}{2} \times 20 \times 25\right)$ $= 2000 - (500 + 250)$ $= 2000 - 750$ $= 1250 \text{ cm}^2$	2

The Number Plane

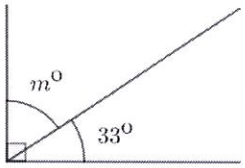
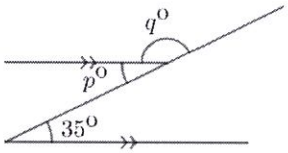
	Question	Working / Answer	Marks
24	What is the coordinates of the ***origin***.	(0, 0)	1
25	 		
	a) Write down the coordinates of the points A and B. A = (−1, 2) B = (3, 0)		2
	b) On the number plane above, plot and label the point C (1, 1).		1
	c) The table of values below are coordinates of three points. Complete the table so that they form a straight line.		1

x	0	1	2
y	-3	-1	1

26	Translate the triangle CDE 3 units left and 2 units up. Label the vertices (corners) of the image with C', D' and E'.		**2**
27	Reflect the given shape across the dotted line.		**2**

Mixed questions

	Question	Working / Answer	Marks
28	Evaluate: a) $-8 + (-2)$	a) $-8-2$ $=-10$	**1**
	b) $12 - 4 \times (5 - 15) \div (-2)$	b) $12-4\times(-10)\div(-2)$ $=12-20$ $=-8$	**2**

29	Find the value of m.  	$m = 90 - 33$ $= 57°$	**1**
30	Find the values of the angles: a) p b) q  	a) $p = 35°$ b) $q = 180 - 35$ $= 145°$	**1** **1**
31	Find 5% of \$120.	$\frac{5}{100} \times 120 = \$6$	**1**
32	Calculate a) $\frac{9}{20} - \frac{1}{4}$ b) $\frac{9}{10} \times \frac{2}{3}$	a) $\frac{9}{20} - \frac{5}{20}$ $= \frac{4}{20}$ $= \frac{1}{5}$ b) $\frac{3}{5}$	**2** **1**
33	Which quadrilaterals have perpendicular diagonals? Write down all that apply from the following list. Square, rectangle, parallelogram, rhombus, kite, trapezium	Square, rhombus, kite	**1**
34	Simplify $2x + 3x - x$.	$4x$	**1**

35	Solve $\frac{x-11}{4} = 8$.	$x - 11 = 32$ $x = 43$	**2**
36	\$800 is shared among three friends. Amy gets \$8 more than Ben who gets \$16 more than Charlie. How much does Ben receive?	Let x be the amount Ben received. $(x+8) + x + (x-16) = 800$ $3x - 8 = 800$ $3x = 808$ $x = \frac{808}{3}$ $= 269\frac{1}{3}$ Ben received \$269.33	**2**
37	Write two ~~smallest~~ positive numbers less than 50 which are multiples of 8 and have common factors of 3 and 4.	24, 48	**2**

- End of Yearly -