

"BETWEEN PAPERS"

PRACTICE

1 OF 1 (F&H)

SUMMER 2018

QUESTIONS

NOT A "BEST" GUESS PAPER.

**NEITHER IS IT A "PREDICTION" ... ONLY THE EXAMINERS KNOW WHAT IS GOING TO COME UP! FACT!
YOU ALSO NEED TO REMEMBER THAT JUST BECAUSE A TOPIC CAME UP ON PAPER 1 OR PAPER 2 IT MAY
STILL COME UP ON PAPER 3 ...**

**WE KNOW HOW IMPORTANT IT IS TO PRACTICE, PRACTICE, PRACTICE SO WE'VE COLLATED A LOAD OF
QUESTIONS THAT WEREN'T EXAMINED IN THE AQA 9-1 GCSE MATHS PAPER 1 OR PAPER 2 BUT WE
CANNOT GUARANTEE HOW A TOPIC WILL BE EXAMINED IN THE NEXT PAPERS ...**

**ENJOY!
MEL & SEAGER**

Q1. Which statement is true? Circle your answer.

10% of 50 = 50% of 20

10% of 10 = 20% of 20

10% of 20 = 20% of 10

10% of 40 = 25% of 100

[1]

Q2. Factorise $x^2 - y^2$

[1]

Q3. Adam and six other men ran a race.

The times, in seconds, of the six other men are shown.

9.75 9.79 9.80 9.88 9.94 9.98

The mean time for **all seven** men was 9.83 seconds.

Did Adam win the race?

You must show your working.

[3]

Q4. (a) Factorise fully $9a^2 - 6a$

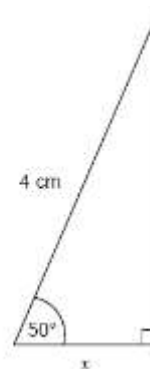
[2]

(b) Solve $x^2 - 12x + 20 = 0$

[3]

Q5. Work out the value of x . Give your answer to 1 decimal place.

[2]



Not drawn accurately

Q6. The pressure at sea level is 101 325 Pascals. Any rise of 1 km above sea level decreases the pressure by 14%. For example,

at 3 km above sea level the pressure is 14% less than at 2 km

Work out the pressure at 4 km above sea level.

Give your answer to 2 significant figures.

_____ Pascals [4]

Q7. In 1999 the minimum wage for adults was £3.60 per hour.

In 2013 it was £6.31 per hour.

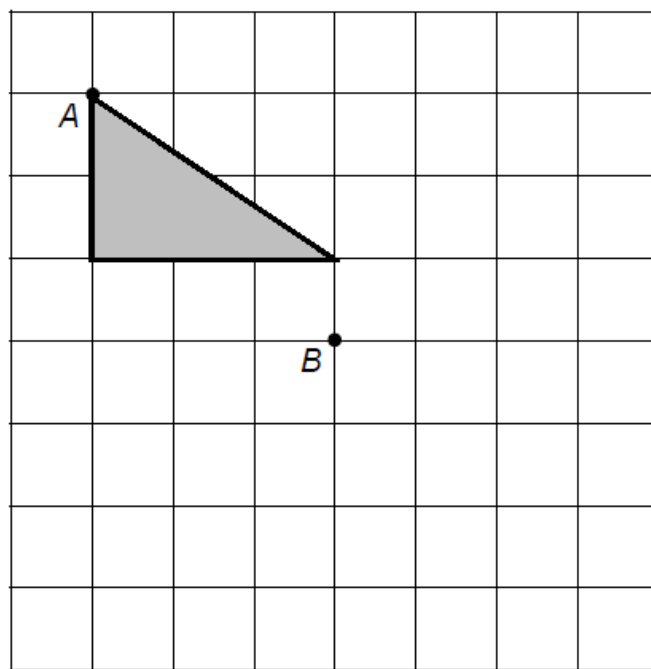
Work out the percentage increase in the minimum wage.

_____ % [3]

Q8. Expand and simplify $(y - 5)(y - 2)$

[2]

Q9. Translate the triangle so that point A moves to point B.



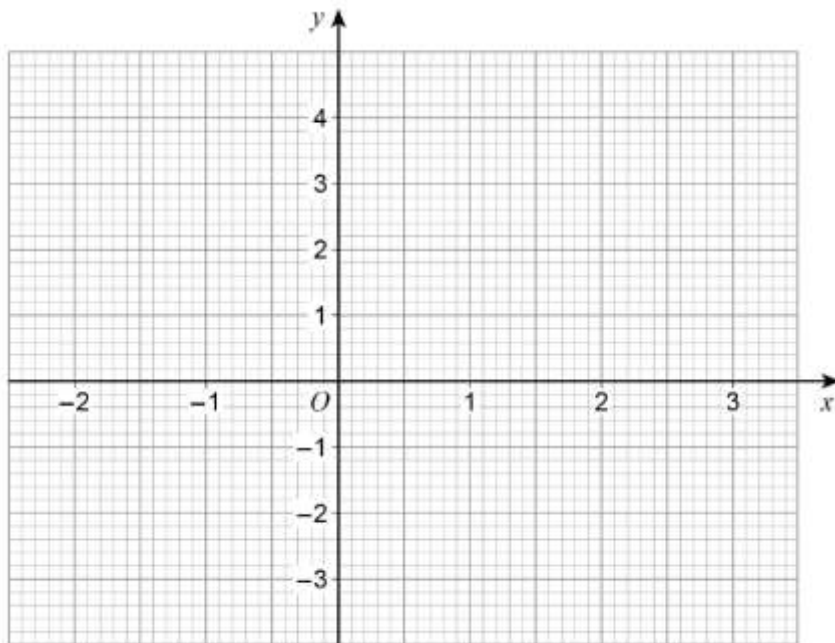
[1]

Q10. (a) Complete the table of values for $y = x^2 - x - 2$

x	-2	-1	0	1	2	3
y			-2	-2		4

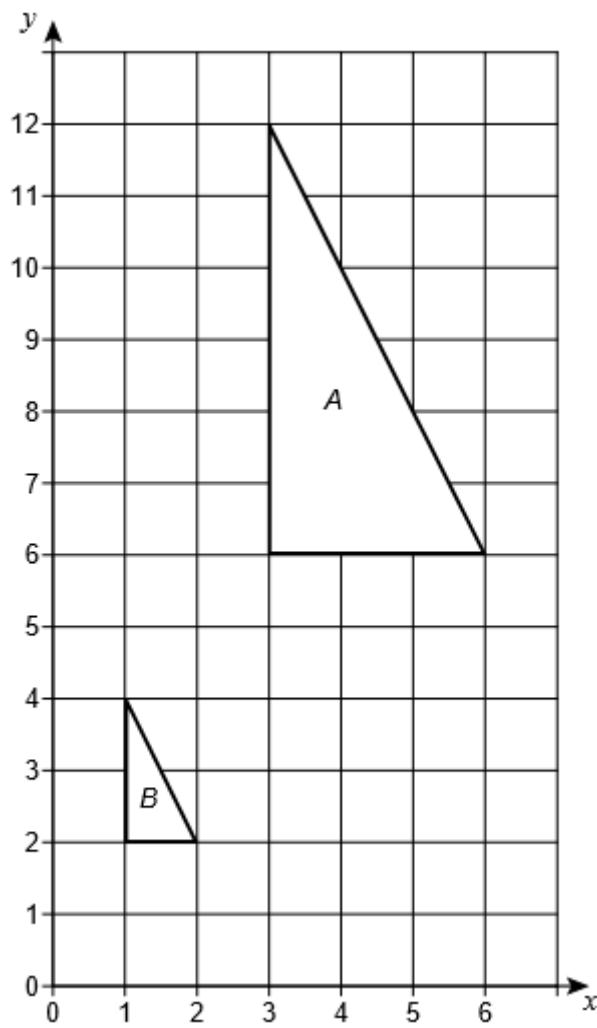
[2 marks]

(b) Draw the graph of $y = x^2 - x - 2$ for values of x from -2 to 3



[2 marks]

Q11. Describe fully the single transformation that maps triangle A to triangle B.

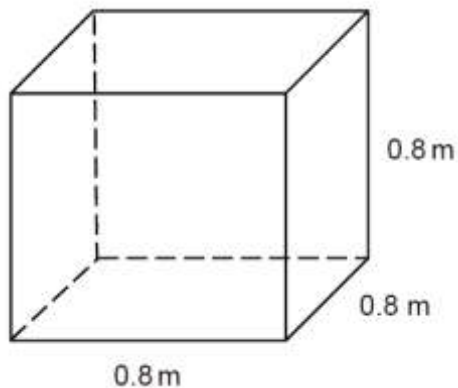


[3]

- Q12.** Mel invests £6000 at a compound interest rate of 1.5% per year. She wants to earn more than £1000 interest. Work out the least time, in whole years, that this will take.

[3 marks]

- Q13.** A cube has edges of length 0.8 metres.



Work out its volume in cubic centimetres.

_____ cm³ [2]

- Q14** Solve $12x = 3$

Circle your answer.

$x = -9$

$x = \frac{1}{4}$

$x = 4$ $x = 36$

[1]

- Q15.** A line has the equation $y = 4x - 5$

a) What is the gradient of the line? Circle your answer.

-5

-4

4

5

[1]

b) What is the y-intercept of the line? Circle your answer.

-5

-4

4

5

[1]

- Q16.** Make t the subject of the formula $w = 3t + 11$

[2]

Q17. Toilet rolls come in packs of 4 and 9



£1.89



£3.99

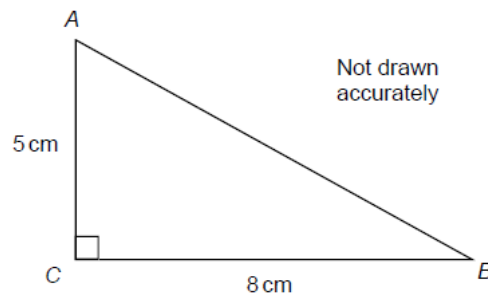
Which pack is better value?
You must show your working.

[3]

Q18. Write 98 as a product of its prime factors

[1]

Q19. How long is side AB?



Tick a box.

Between 5 cm and 8 cm

8 cm

Between 8 cm and 13 cm

More than 13 cm

[1]

Q20. A drink is mixed in the ratio

lemonade : orange : cranberry = 6 : 3 : 2

What fraction is orange?

Circle your answer.

[1]

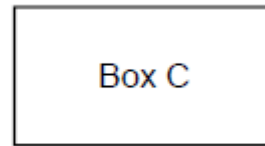
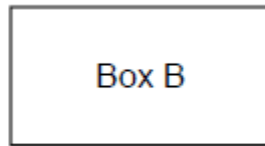
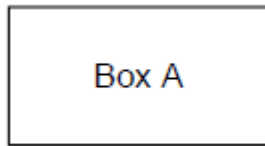
$\frac{3}{8}$

$\frac{2}{11}$

$\frac{3}{11}$

$\frac{6}{11}$

Q21. Three boxes contain counters.



There are 62 counters in total.

The total number of counters in box A and box B is 34

The difference between the number of counters in box A and box C is 9

Work out the number of counters in each box.

Box A _____ Box B _____ Box C _____ [3]