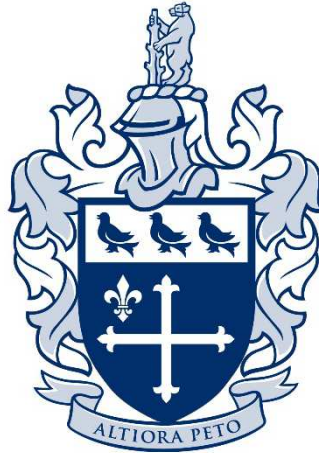


# Warwick School



**WARWICK**  
SCHOOL

11+ Entrance Examination

**Mathematics**

Please write your full name here:

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Before you start read these instructions:

- The test lasts 60 minutes.
- We would like to see how you worked out your answers, so **show your working**. We may be able to give your marks even if the answer is wrong.
- If you cannot do a question, leave it and move to the next question.
- **Do not use a calculator.**
- **Have you written your full name above?**

$$9728 + 675$$

Answer: \_\_\_\_\_ [1]

b)  $1003 - 637$

Answer: \_\_\_\_\_ [1]

c)  $87 \times 93$

Answer: \_\_\_\_\_ [2]

d)  $7799 \div 11$

Answer: \_\_\_\_\_ [1]

2. Calculate

a)  $4\frac{1}{2} + 5\frac{3}{4}$

Answer: \_\_\_\_\_ [1]

b)  $7 \times \frac{3}{5}$

Answer: \_\_\_\_\_ [1]

c)  $5\frac{2}{5} - 2\frac{4}{5}$

Answer: \_\_\_\_\_ [1]

Total ( /8)

a) 50    42    34        18

b) 2.302    2.304    2.306    2.308   

c) 4    7    13    25    49   

d) 100    81    64    49    36   

e)     3.5    7    14    28

[5]

4. a) Write  $\frac{14}{20}$  as a **decimal**

Answer: \_\_\_\_\_ [1]

b) Write 0.625 as a **fraction** in its lowest terms

Answer: \_\_\_\_\_ [2]

c) Write the answer to  $\frac{13}{20} + 0.1$  as a **percentage**

Answer: \_\_\_\_\_ [1]

d) Give the ratio 36 : 84 in its **simplest form**

Answer: \_\_\_\_\_ [1]

Total (    /10)

What is the total cost of  $\frac{1}{2}$  kg of grapes, 2 melons and 3 punnets of nectarines? Give your answer in £

Answer: £ \_\_\_\_\_ [2]

b) How much change would you get from £10 if you bought 1 kg of grapes, 1 melon and 1 punnet of nectarines? Give your answer in £

Answer: £ \_\_\_\_\_ [2]

6. Find the number that is exactly halfway between 6.7 and 9.1

Answer: \_\_\_\_\_ [1]

Total ( /5)

Write down any multiple of 8 between 50 and 70

Answer: \_\_\_\_\_ [1]

b) Write down a prime number between 48 and 60

Answer: \_\_\_\_\_ [1]

c) Write down a factor of 90 that is between 12 and 25

Answer: \_\_\_\_\_ [1]

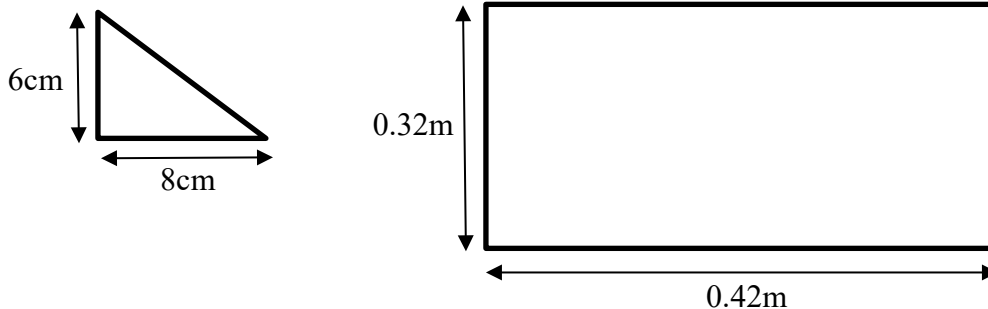
d) Write down a square number between 30 and 60

Answer: \_\_\_\_\_ [1]

e) Write down a 2-digit number that is both a square number and cube number

Answer: \_\_\_\_\_ [1]

8. How many small triangles would fit exactly into the larger rectangle?



Answer: \_\_\_\_\_ [3]

Total ( /8)

—

How many boys are in the class if there are 15 girls?

Answer: \_\_\_\_\_ boys [1]

b) How many **more** girls than boys are there in a class of 35 pupils?

Answer: \_\_\_\_\_ more girls [2]

Total ( /11)

$$44460 \div 57 =$$

Answer: \_\_\_\_\_ [1]

b)  $57 \times 780 =$

Answer: \_\_\_\_\_ [1]

c)  $4446 \div 5.7 =$

Answer: \_\_\_\_\_ [1]

d)  $7.8 \times 5.7 =$

Answer: \_\_\_\_\_ [1]

e)  $3 \times 78 \times 19 =$

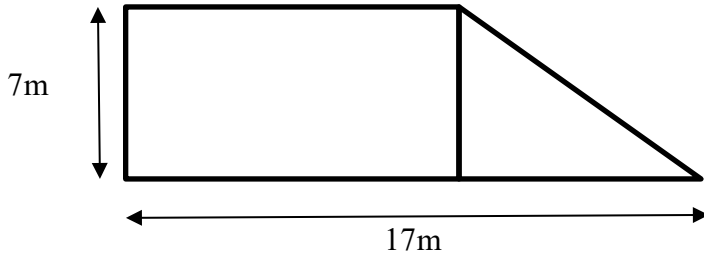
Answer: \_\_\_\_\_ [1]

15. Calculate (40% of 90) + ( $\frac{3}{7}$  of 63)

Answer: \_\_\_\_\_ [2]

Total ( /9)

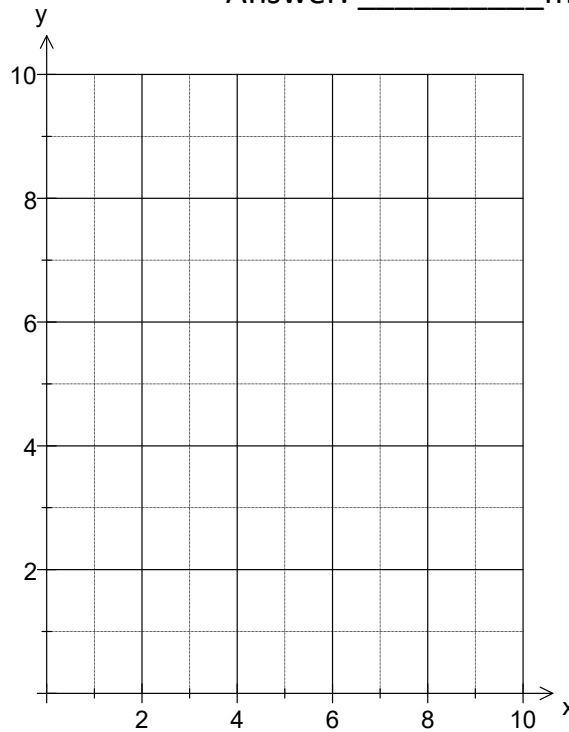
The rectangle and triangle below have the same height.



If the perimeter of the rectangle (all 4 sides) is 32m, what is the area of the triangle?

Answer: \_\_\_\_\_ m<sup>2</sup> [3]

17. a) On the grid mark with a clear cross the coordinates (1, 3), (6, 3) and (4, 5).



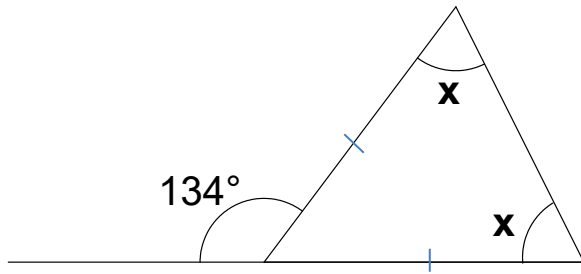
[2]

- b) A fourth point is plotted so that the shape above is a PARALLELOGRAM  
What is the coordinate of the point to be plotted?

Answer: ( \_\_\_\_\_ , \_\_\_\_\_ ) [1]

Total ( /6)

x



Answer:  $x = \underline{\hspace{2cm}}$  [2]

19. Edward has a sum of money. He gives one-third to his son George and three-fifths to his daughter Olivia. If George receives £15, how much does Olivia receive?

Answer: £                      [3]

20. A bag contains coloured balls. There are **4 red**, **2 blue** and **1 green** in the bag.

a) What fraction of the balls are **red**?

Answer:            [1]

b) How many **green** balls must be **added** to the bag if the fraction of **green** is now  $\frac{1}{3}$ ?

Answer:            [1]

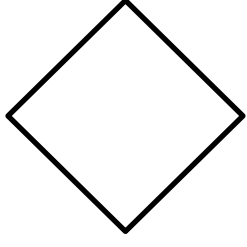
c) How many **blue** balls must be **added** to the bag you started with if the fraction of **blue** is now  $\frac{1}{2}$ ?

Answer:            [1]

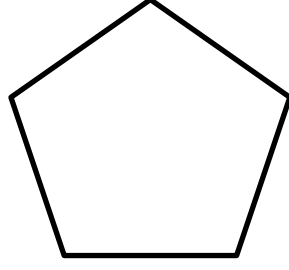
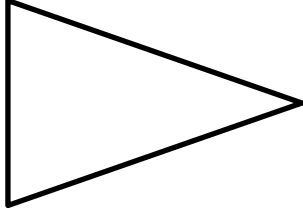
d) How many **red** balls must be **removed** from the bag you started with if the percentage of **green** is now 25%?

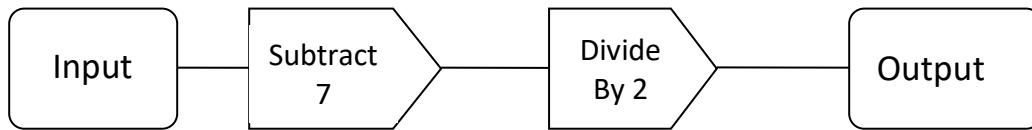
Answer:            [1]

Total (    /9)



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If the input is 16, what is the output?

Answer: \_\_\_\_\_ [1]

b) If the input is 1, what is the output?

Answer: \_\_\_\_\_ [1]

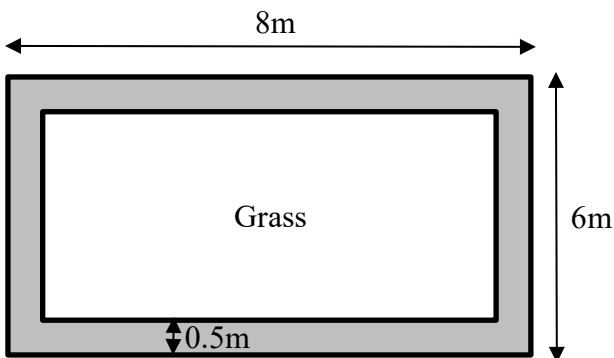
c) If the output is 3, what is the input?

Answer: \_\_\_\_\_ [2]

d) If the output is  $n$ , what is the input?

Answer: \_\_\_\_\_ [2]

24. The diagram below represents a rectangular grass lawn surrounded by a gravel path on the outside. The width of the path is 0.5m. Gravel costs £5.70 per  $m^2$ . What is the cost of gravel required to cover the path?



Answer: £ \_\_\_\_\_ [4]

Total ( /10)

A minibus costs £80 to hire for the day. Tickets for the theme park cost £15 each. Write a formula for the total cost 'C' of hiring 'm' minibuses and purchasing 't' tickets.

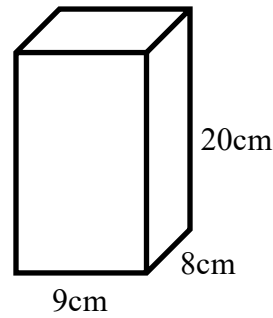
Answer:  $C = \underline{\hspace{2cm}}$  [2]

26. I am thinking of a 2-digit number.  
When the number is divided by 5 the remainder is 2.  
When the number is divided by 7 the remainder is 4.  
What is the smallest 2-digit number that I was thinking of?

Answer:  $\underline{\hspace{2cm}}$  [2]

Total ( /7)

The diagram represents a carton of orange juice in the shape of a cuboid.  
The carton is full.



Using the formula  $\text{Volume} = \text{length} \times \text{width} \times \text{height}$ , calculate the volume of orange juice in the carton.

Answer: \_\_\_\_\_  $\text{cm}^3$  [2]

- b) A cup holds  $120 \text{ cm}^3$  of liquid.  
How many cups can be filled from the full carton of orange juice?

Answer: \_\_\_\_\_ [2]

- c) Jane drinks  $216 \text{ cm}^3$  of orange juice from the carton.  
What is the new height of orange juice in the carton?

Answer: \_\_\_\_\_ cm [2]

28. Homer, Marge and Bart each have \$1000.  
Homer gives 10% of his money to Marge. Marge then gives 10% of her new amount to Bart. Bart then gives 10% of his new amount to Homer.  
How much has Homer got now?

Answer: \$ \_\_\_\_\_ [2]

Total ( /8)

**END OF EXAMINATION**

**Now go back, check your answers and try any questions you may have left out.**