BENENDEN

Lower School Scholarship 2017

Mathematics

11+

1 Hour

Name: _____

Current school: _____

Date: _____

Instructions to Candidates:

- Calculators may **not** be used
- Attempt all questions
- Show ALL working
- Check your answers for accuracy
- Total marks for this paper = 50

1) Calculate $1440 \div 24$

(3)

2) If you look at a clock and the time is a quarter to 4, what is the obtuse angle between the hands?

(4)

3) a) $4 + 6 \div 3$

(1)

b) $13 \times 12 - 6 \div 2$

(2)

c) $8 \times (9 - 4) \times 3$

(2)

4) A row of houses are numbered 1 – 70. What percentage of the doors have either a 1 or a 9 on them?

(4)

5) Calculate, giving answers as mixed numbers if appropriate.

a) $\frac{4}{5} + \frac{1}{7}$

(2)

b) $3\frac{1}{8} - 2\frac{3}{4}$

(2)

c) $5\frac{5}{7} \div 4\frac{4}{5}$

(2)

6) Solve each of the following equations:

a) $50 - 6m = 26$

(1)

b) $4k + 2 = 7k - 25$

(2)

7) Part of a number sequence is shown.

… , 105, 120, 135, …

If these are the 7^{th}, 8^{th} and 9^{th} values in the sequence, what is the 100^{th}?

(4)

8) The volume of a cube is $64cm^3$. What is the total surface area?

(4)

9)

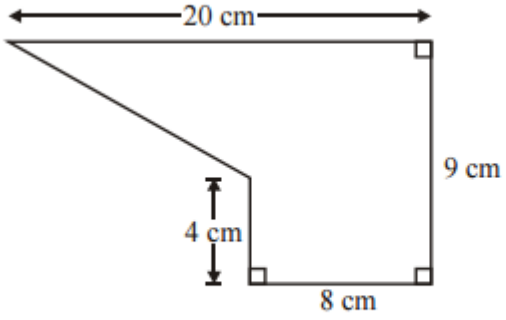


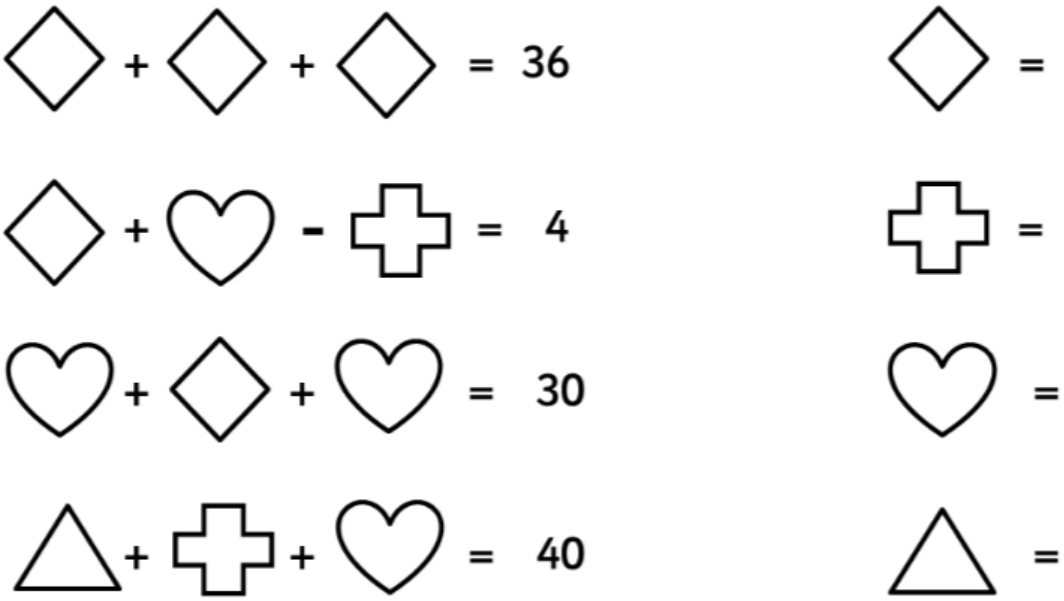
Diagram **NOT** accurately drawn

The diagram shows a shape.
Work out the area of the shape.

(4)

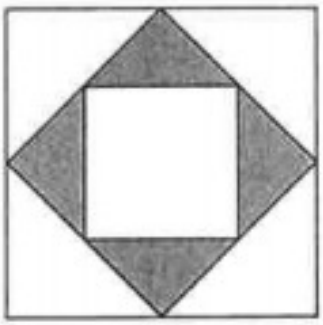
10)

Work out the value of each shape.



(7)

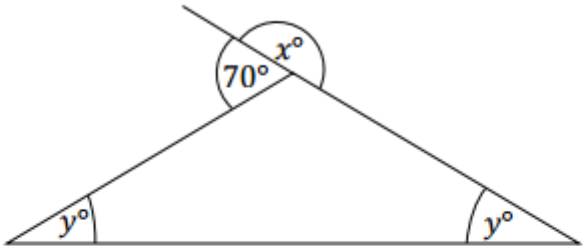
11) What fraction of the square below is shaded?



(3)

12)

The diagram shows a triangle and a line. The two angles marked $y°$ are equal.



(a) Write down the value of x.

Answer: $x =$ _____ [1]

(b) Work out the value of y.

Answer: $y =$ _____ [2]

END OF EXAM