Year 6 Reasoning Quiz 3
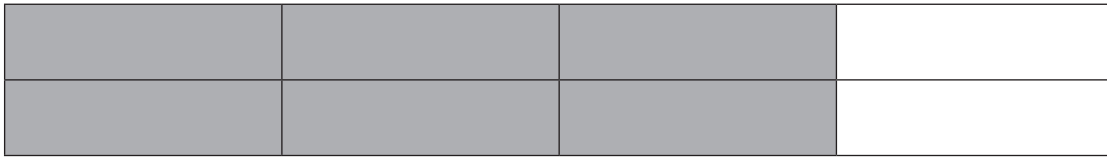
Equivalent Fractions

1. Write the two missing values to make these equivalent fractions correct.

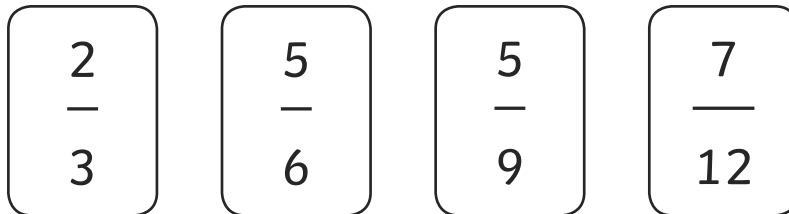$$\frac{\boxed{}}{4} = \frac{9}{12} = \frac{6}{\boxed{}}$$

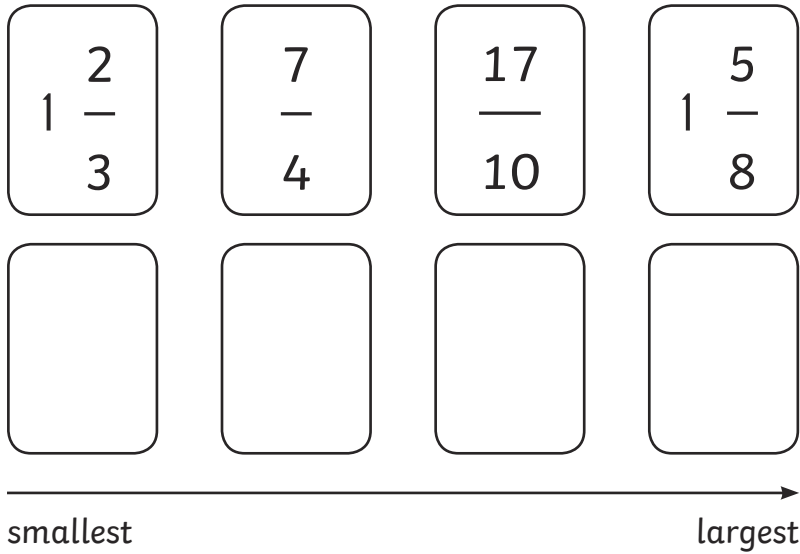2. Write 2 equivalent fractions that can be represented by this drawing:

_____ and _____

3. Here are four fraction cards.

$$\frac{2}{3} \qquad \frac{5}{6} \qquad \frac{5}{9} \qquad \frac{7}{12}$$

Use any **three** of the cards to make this correct.

$$\boxed{} < \boxed{} < \boxed{}$$

4. Order the following fractions from smallest to largest:

$$1\frac{2}{3} \qquad \frac{7}{4} \qquad \frac{17}{10} \qquad 1\frac{5}{8}$$

smallest   largest

Fraction Problems

5. Shade $\frac{1}{3}$ of each shape.
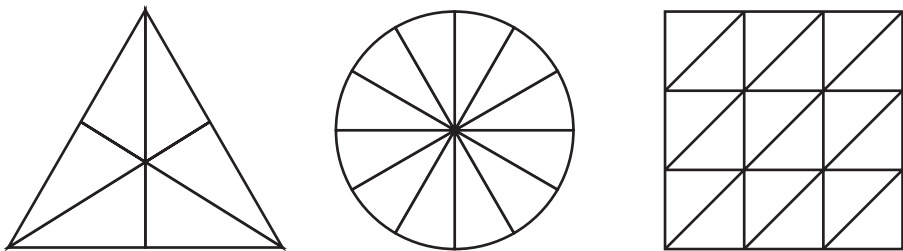
6. At the beginning of the day, Hasim counted his money. He gave his brother 1/3 of his money. He spent £12 on a present for his sister. He then counted what he had left, and it was half what he had at the beginning of the day. How much did he give his brother? Show your method.

£

Decimal Number Problems

7. Circle two numbers that add together to equal 0.75.

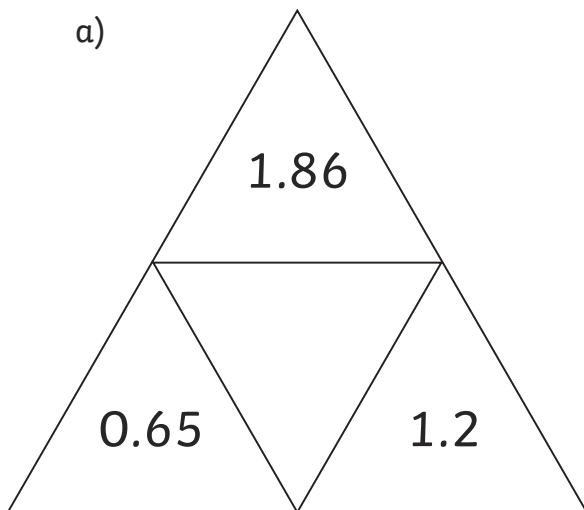<div style="text-align:center">

0.03   0.7   0.72   0.07

</div>

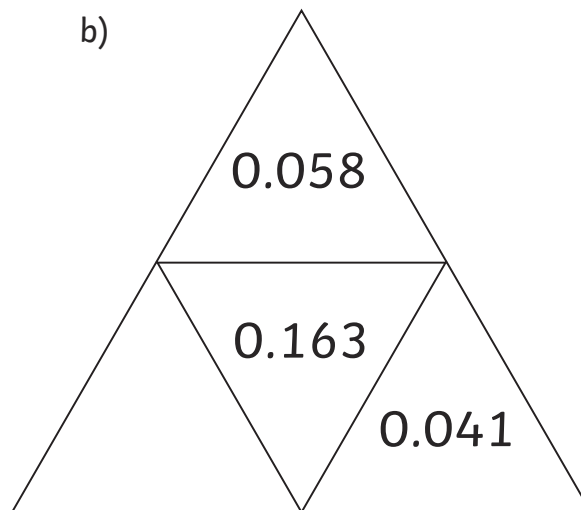8. Continue the sequence to put the correct numbers in the unshaded boxes.

0.04	0.05	0.06	0.07	0.08
0.12	0.13	0.14	0.15	0.16

9. Complete the triangles so that the number in the centre is the sum of the numbers on the outside.

a)

1.86

0.65   1.2

b)

0.058

0.163

0.041

10. Round the following decimal numbers:

	Rounded to nearest	
1.5	whole number	
2.928	tenths	
0.185	hundredth	

Ratio

11. 24 identical books are on a shelf

156cm
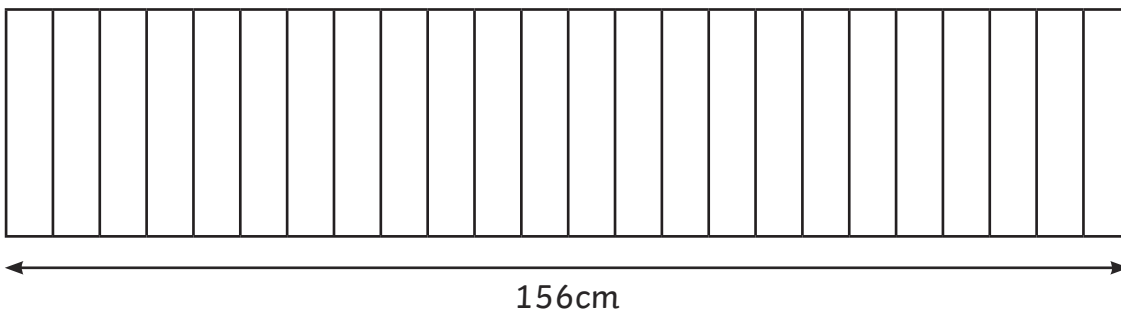
Another four of the same book is added to the shelf.
What is the width of the books now?

Show your method.

12. Here are the ingredients needed for raspberry ice cream:

    4 egg yolks
    100g sugar
    300ml cream
    300ml milk
    150g raspberries

    Greg wants to use a box of 6 eggs. What mass of raspberries should he use?

    Show your method.

    g

END OF TEST

1

$$\frac{\boxed{3}}{4} = \frac{9}{12} = \frac{6}{\boxed{8}}$$

2 $\frac{3}{4}$, $\frac{6}{8}$

3 Answer will be 3 of the following:

$\frac{5}{9}$ $\frac{7}{12}$ $\frac{2}{3}$ $\frac{5}{6}$

4 $1\frac{5}{8}$ $\quad 1\frac{2}{3}$ $\quad \frac{17}{10}$ $\quad \frac{7}{4}$

smallest ⟶ largest

5 2 parts of the triangle,
4 parts of the circle,
6 parts of the square.

6 £24

7 0.03 and 0.72

8 0.28
0.38
0.24

9 a) 3.71

b) 0.064

10

	Rounded to nearest	
1.5	whole number	2
2.928	tenths	2.9
0.185	hundredth	0.19

11 182cm

12 225g