

EQUIVALENT FRACTIONS

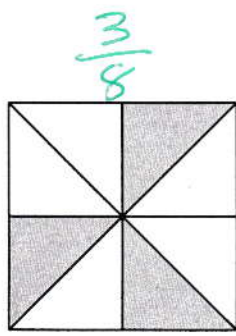
CONTENT DOMAIN REFERENCES:
F2

KS2 SATS

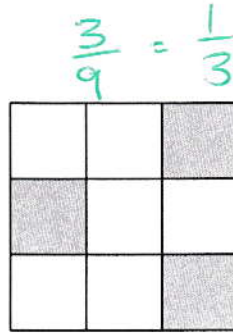
PRACTICE QUESTIONS BY TOPIC

- 1** Each of these diagrams is divided into equal parts.
Some of the parts are shaded.

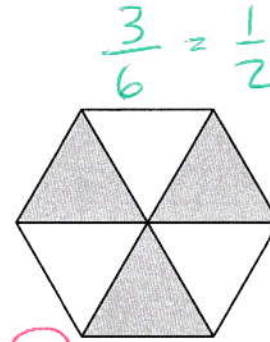
[2014]



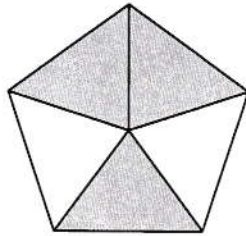
A



B

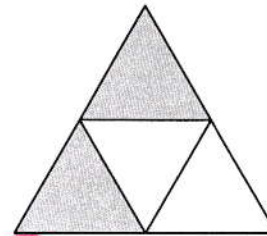


C



D

$\frac{3}{5}$



E

$\frac{2}{4} = \frac{1}{2}$

Write the letters of all the diagrams that have exactly $\frac{1}{2}$ shaded.



C, E

Which of the diagrams has exactly $\frac{1}{3}$ shaded?



B

[1 mark]

2

Sarah has a packet of balloons.

[2010]

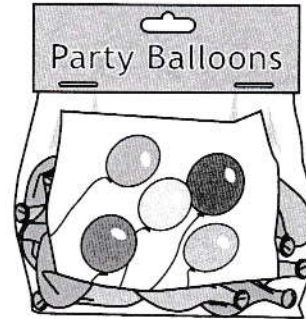
The contents of the packet are

5 red balloons

5 blue balloons

10 yellow balloons

} TOTAL = 20



Sarah says,

'One-quarter of the balloons are red'.

Is Sarah correct?
Circle **Yes** or **No**.

Yes / No

Explain how you know.

THE TOTAL NUMBER OF BALLOONS IS 20, SO THE FRACTION OF RED ONES IS $\frac{5}{20} = \frac{1}{4}$

[1 mark]

3

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

[2016]

$$\frac{\boxed{2}}{3} = \frac{8}{12} = \frac{4}{\boxed{6}}$$

Handwritten annotations: A green arrow points from the 2 in the numerator to the 8 in the numerator, labeled $\div 4$. A pink arrow points from the 8 in the numerator to the 4 in the numerator, labeled $\div 2$. A green arrow points from the 3 in the denominator to the 12 in the denominator, labeled $\div 4$. A pink arrow points from the 12 in the denominator to the 6 in the denominator, labeled $\div 2$.

[2 marks]

4Two of the fractions below are **equivalent**.

[2009]

Circle them.



$\frac{2}{3}$

$\frac{6}{10}$

$\frac{9}{12}$

$\frac{10}{15}$

$\frac{16}{20}$

$\frac{3}{5}$

$\frac{3}{4}$

$\frac{2}{3}$

$\frac{4}{5}$

[1 mark]

5Complete these fractions to make each equivalent to $\frac{3}{5}$

[2001]



$\frac{6}{10}$

$\frac{9}{15}$

$\frac{12}{20}$

[2 marks]

6

Each diagram below is divided into equal sections.

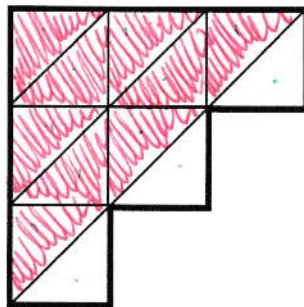
[2016]

Shade three-quarters of each diagram.

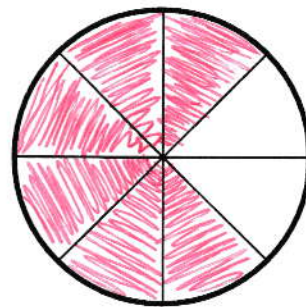
[ANY 3]



[ANY 9]



[ANY 6]

12 TRIANGLES,
SO SHADE $\frac{9}{12}$ 8 SECTORS,
SO SHADE $\frac{6}{8}$

[2 marks]

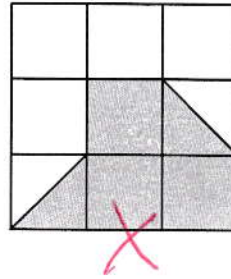
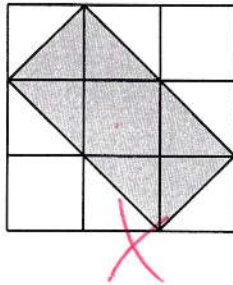
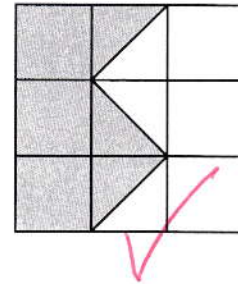
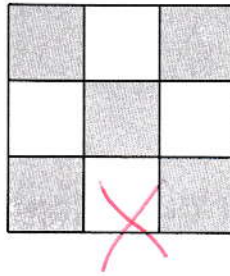
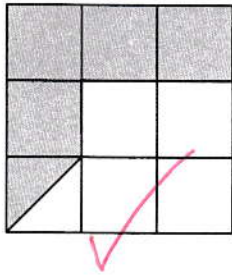
7

Here are five diagrams.

[2007]

Put a tick (✓) on the diagram if exactly $\frac{1}{2}$ of it is shaded.
Put a cross (✗) if it is not.

[LOOKING FOR $4\frac{1}{2}$ SQUARES SHADED!]

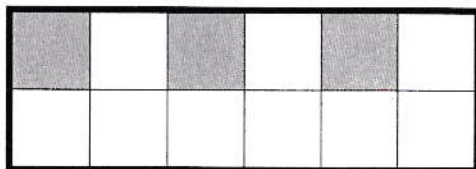
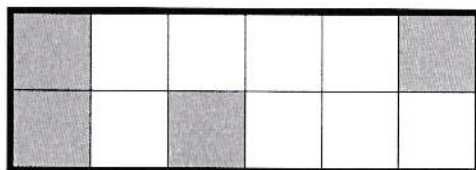
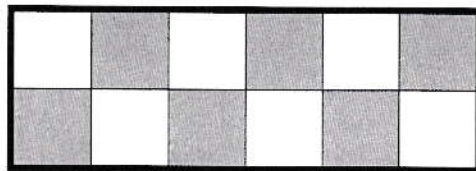
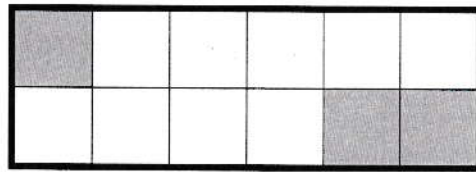


[1 mark]

8

Tick (✓) each shape that is exactly $\frac{1}{4}$ shaded.

[2013]

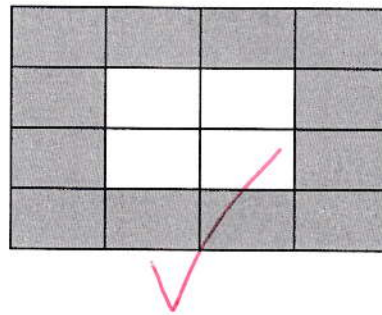
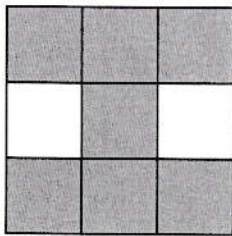
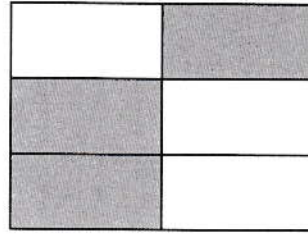
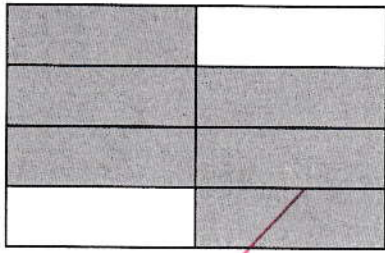


[LOOKING FOR 3 SQUARES SHADED!]

[2 marks]

9Tick two shapes that have $\frac{3}{4}$ shaded.

[2017]

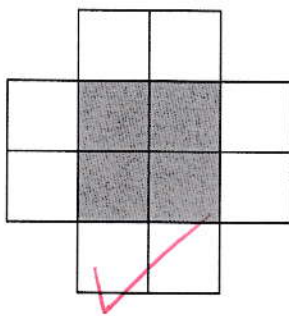


[1 mark]

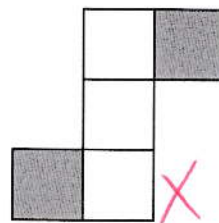
10

These diagrams are all made of squares.

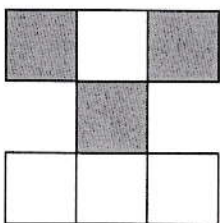
[2010]

Put a tick (\checkmark) if exactly $\frac{1}{3}$ of it is shaded. Put a cross (\times) if it is not.

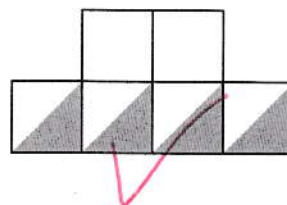
$$\frac{4}{12} = \frac{1}{3}$$



$$\frac{2}{5}$$



$$\frac{3}{7}$$



$$\frac{2}{6} = \frac{1}{3}$$

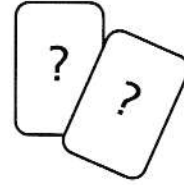
[2 marks]

11

Karen makes a fraction using two number cards.

[2003]

She says,

'My fraction is equivalent to $\frac{1}{2}$ *'One of the number cards is 6'*

What could Karen's fraction be?

Give both possible answers.

$$\frac{6}{12} \quad \text{or} \quad \frac{3}{6}$$

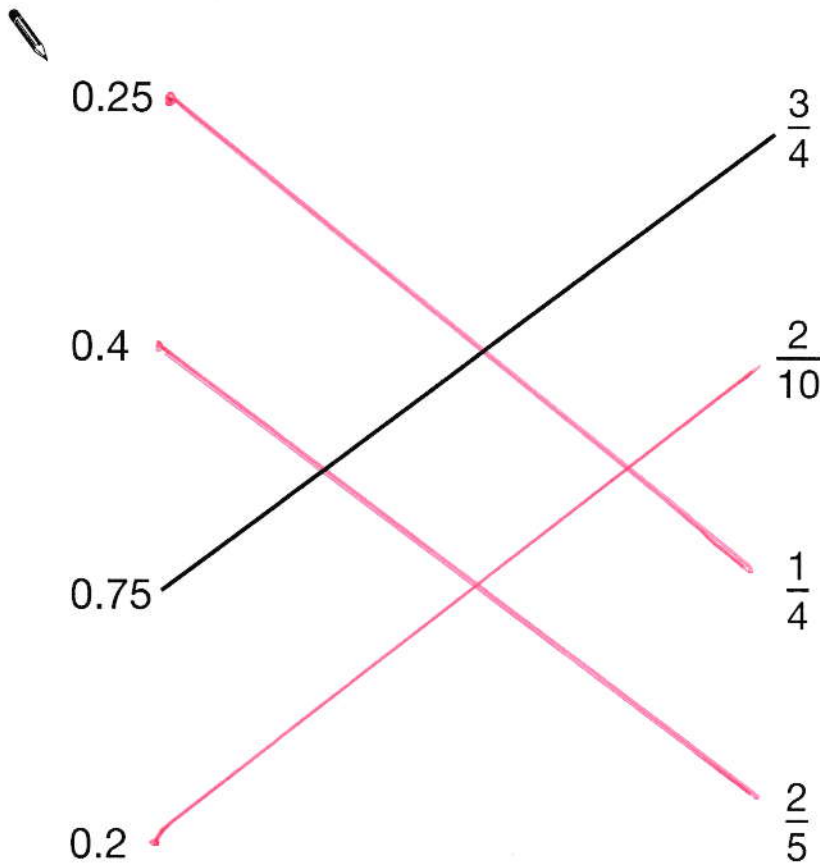
[1 mark]

12

Match each decimal number to its equivalent fraction.

[2006]

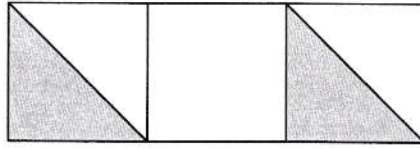
One has been done for you.



[2 marks]

13

[2011]



Holly says,

'One-third of this shape is shaded'.

Is Holly correct?
Circle **Yes** or **No**.

Yes / No

Explain how you know.

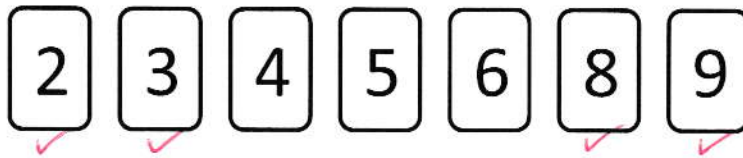
THE TWO TRIANGLE MAKE ONE
WHOLE SQUARE
SINCE THERE ARE THREE SQUARES IN
TOTAL $\frac{1}{3}$ IS SHADED.

[1 mark]

14

Here are some digit cards.

[New]



Use **four** of the cards to complete these equivalent fractions.

Each fraction is less than one.

$$\frac{2}{3} = \frac{6}{9}$$

$$\frac{6}{8} = \frac{3}{4}$$

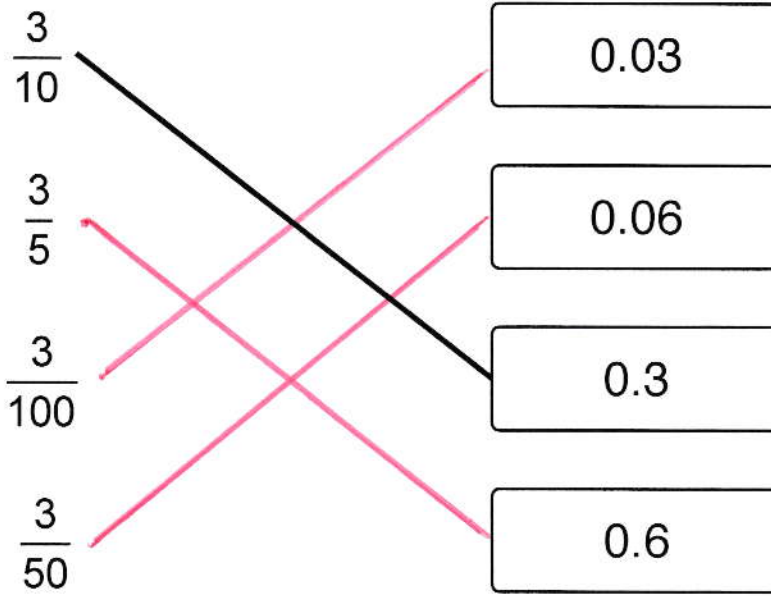
[1 mark]

15

Join each fraction to the correct decimal card.

[2014]

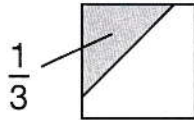
One has been done for you.



[2 marks]

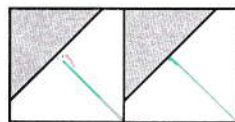
16 $\frac{1}{3}$ of this square is shaded.

[2008]

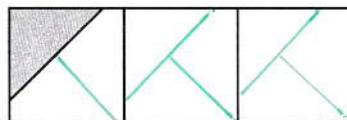


The same square is used in the diagrams below.

What fraction of this diagram is shaded?

 $\frac{2}{6}$ 

What fraction of this diagram is shaded?

 $\frac{1}{9}$ 

[2 marks]