## Number - fractions

(including decimals and percentages)
6.1
$\square$
I

Name
Date

## Section 1:

- use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- compare and order fractions, including fractions >1

1 Complete these equivalent fractions.


2 Eve says that $\frac{2}{3}$ is more than $\frac{9}{15}$

Explain why she is correct.
$\square$
1 mark
3 Write these fractions in their simplest form.
The first one has been done for you.


4 Write these fractions in order, starting with the smallest.

$$
\frac{2}{6} \quad \frac{1}{2} \quad \frac{1}{4} \quad \frac{2}{12}
$$


smallest


5 Convert these improper fractions into mixed numbers.
The first one has been done for you.
$\frac{5}{3}=1 \frac{2}{3}$
$\frac{9}{4}=\square$
$\frac{13}{10}$
$=\square$
$\frac{21}{5}$


6 Draw an arrow to show the positions on the number line.
The first one has been done for you.

| A $\frac{7}{10}$ | B | $\frac{13}{10}$ | C | $\frac{3}{2}$ | D | $\frac{1}{5}$ | E | $\frac{9}{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


$7 \quad$ Look at these signs.


Write the correct sign in each box


Section 2:
add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions

8 Complete the calculations.


$$
\frac{3}{4}+\frac{3}{8}=\square
$$

$2 \frac{1}{10}-\frac{1}{5}=\square$

$$
\frac{1}{3}-\frac{1}{4}=\square
$$

9 Adam makes a pizza.

He gives $\frac{5}{12}$ of the pizza to Jack.
He gives $\frac{1}{4}$ of the pizza to Nick.
He eats the rest himself.
What fraction of the pizza does Adam eat?


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Section 3:

- multiply simple pairs of proper fractions, writing the answer in its simplest form divide proper fractions by whole numbers

10 Complete the calculations. Writing the answers in its simplest form.
$\frac{1}{3} \times \frac{1}{2}=\square \frac{3}{4} \times \frac{2}{3}=\square$
$\frac{1}{4}$ of $\frac{4}{5}=\square$
$\frac{1}{20} \times \frac{2}{5}=\square$
4 marks
11 Abigail poured $\frac{1}{3}$ of a packet of sweets into a bowl She ate $\frac{3}{5}$ of the sweets in the bowl.

What fraction of the packet of sweets did she eat?


12 Complete the calculations.

$$
\begin{aligned}
& \frac{1}{2} \div 2=\square \frac{1}{4} \div 3=\square \\
& \frac{3}{4} \div 2=\square \frac{7}{8} \div 7=\square \\
& \text { MATHSFRAM|E } 8
\end{aligned}
$$

Section 4:
identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by $\mathbf{1 0 , 1 0 0}$ and 1000 giving answers up to three decimal places

13 Write the value of the underlined digit.
The first one has been done for you.


14 Underline the digit that is worth three hundredths.

### 324.736

15 Complete the calculations.

$$
\begin{gathered}
12.6 \times 10=\square \\
205.2 \div 100=\square
\end{gathered}
$$

$$
\begin{aligned}
& 0.407 \times \square=407 \\
& 6420 \div \square=64.2 \\
& 4980 \div 4.98=
\end{aligned}
$$

## Section 5:

- multiply one-digit numbers with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two decimal places solve problems which require answers to be rounded to specified degrees of accuracy

16 Bricks have a mass of 3.24 kg each. A builder loads 80 bricks in his van.


What is the mass of 80 bricks?

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|  | $1$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  | kg |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

17 There are 8 rowers in a boat.
Their combined weight is 810 kg .

Calculate the average weight of one rower.
2 marks

Round your answer to one decimal place.

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| Show <br> your <br> method |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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## Section 6:

recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

18 What percentage of this square is shaded?


1 mark

19 Draw lines to match the equivalent fractions, decimals and percentages.
The first one has been done for you.


