1a．Cole has coloured two grids to create an equivalent fraction．


The parts do not need to be together to create a fraction．

Is Cole correct？Explain your answer．


2a．Sylvia has drawn some equivalent fractions．

A．


B．
 ＝


Find and explain any mistakes．
ゆ

3a．Give 2 possible values for $A$ and $B$ ． Use the images to help you．


$$
\frac{1}{A}=\frac{B}{8}
$$

1b．Jennie has coloured two grids to create an equivalent fraction．


Is Jennie correct？Explain your answer．凹

2b．Mark has drawn some equivalent fractions．
A．

＝

B．

＝

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

Find and explain any mistakes．
風
3b．Give 2 possible values for $A$ and $B$ ．


4a. Amelia has coloured two grids to create an equivalent fraction.


Two parts are shaded in each grid so they show equivalent fractions.

Is Amelia correct? Explain your answer.

5a. Dwayne has drawn some equivalent fractions.


Find and explain any mistakes.
6a. Give 2 possible values for $A$ and $B$.


4b. Conrad has coloured two grids to create an equivalent fraction.


Is Conrad correct? Explain your answer.

5b. Shelly has drawn some equivalent fractions.
A.

$=$


B.
=


Find and explain any mistakes.

6b. Give 2 possible values for $A$ and $B$.


7a. Danyaal has coloured two grids to create an equivalent fraction.


Is Danyaal correct? Explain your answer.

8a. Carlisle has written some equivalent fractions.
A $\frac{5}{6}=\frac{25}{30}$
B $\frac{7}{9}=\frac{21}{27}$
C $\frac{8}{9}=\frac{56}{72}$
D $\frac{49}{63}=\frac{7}{7}$

Find and explain any mistakes.

7b. Lucie has coloured two grids to create an equivalent fraction.


I have shown fractions equivalent to $\frac{1}{3}$.

Is Lucie correct? Explain your answer.

8b. Davina has written some equivalent fractions.
A $\frac{4}{7}=\frac{28}{42}$
B $\frac{5}{9}=\frac{30}{54}$
C $\frac{21}{28}=\frac{15}{20}$
D $\frac{18}{28}=\frac{36}{54}$

Find and explain any mistakes.

9b. Give 2 possible values for $A$ and $B$.

## $\frac{2}{A}=\frac{B}{48}=\frac{24}{C}$

Reasoning and Problem Solving Equivalent Fractions

Reasoning and Problem Solving Equivalent Fractions

## Developing

1b. Jennie is incorrect. The shading shows $\frac{1}{4}=\frac{2}{6}$ but these are not equivalent. $\frac{1}{4}=\frac{2}{8}$
2b. A. 1 shaded part should be crossed out as $\frac{1}{5}=\frac{2}{10}$.
B. 3 more parts should be shaded in as $\frac{1}{2}=\frac{6}{12}$
3b. $\frac{1}{2}=\frac{5}{10}$ and $\frac{1}{5}=\frac{2}{10}$

## Expected

4b. Conrad is correct. $\frac{1}{9}=\frac{2}{18}$
5b. A. 1 shaded part should be crossed out as $\frac{3}{5}=\frac{6}{10}$
B. 4 more parts should be shaded in as $\frac{4}{7}=\frac{8}{14}$
6b. Various answers, for example:
$\frac{2}{4}=\frac{18}{36}$
$\frac{2}{12}=\frac{6}{36}$
$\frac{2}{18}=\frac{4}{36}$

## Greater Depth

7b. Lucie is correct. She has shaded $\frac{2}{6}$ and $\frac{5}{15}$ which are both equivalent to $\frac{1}{3}$.
8b. $A \frac{4}{7}=\frac{28}{49} ; D \frac{18}{28}=\frac{36}{56}$
9b. Various answers, for example:

$$
\begin{aligned}
& \frac{2}{8}=\frac{12}{48}=\frac{24}{96} \quad \frac{2}{16}=\frac{6}{48}=\frac{24}{192} \\
& \frac{2}{12}=\frac{8}{48}=\frac{24}{144}
\end{aligned}
$$

