1a. What is the missing number? How did you know?

$$\frac{1}{6} \div \quad = \frac{1}{30}$$

D · R

1b. What is the missing number? How did you know?

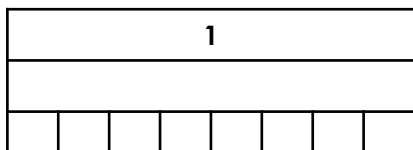$$\frac{1}{10} \div \quad = \frac{1}{20}$$
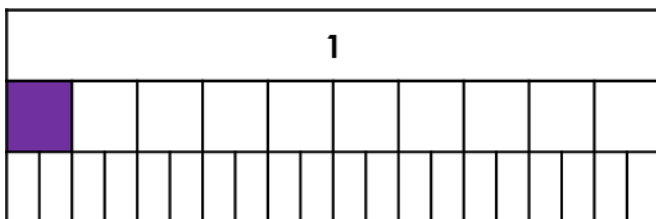
D · R

2a. Fill in the missing numbers to make the equation correct.

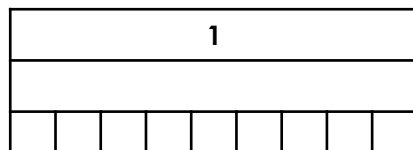$$\frac{1}{\square} \div \square = \frac{1}{8}$$

Complete the bar model to help you.

D · PS

2b. Fill in the missing numbers to make the equation correct.

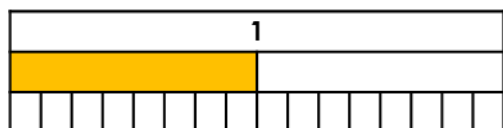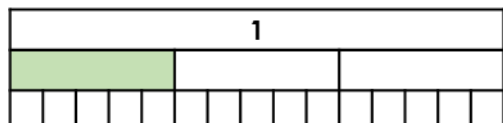$$\frac{1}{\square} \div \square = \frac{1}{9}$$

Complete the bar model to help you.

D · PS

3a. Which statement is incorrect?

A. $\quad \dfrac{1}{2} \div 8 > \dfrac{1}{3} \div 5$

B. $\quad \dfrac{1}{2} \div 8 < \dfrac{1}{3} \div 5$

Prove it using the bar models.

D · R

3b. Which statement is incorrect?

A. $\quad \dfrac{1}{4} \div 4 > \dfrac{1}{6} \div 3$

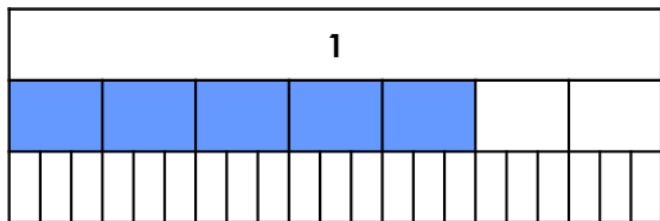B. $\quad \dfrac{1}{4} \div 4 < \dfrac{1}{6} \div 3$
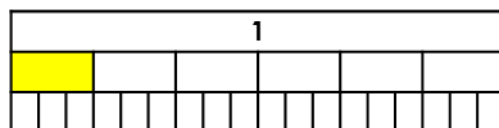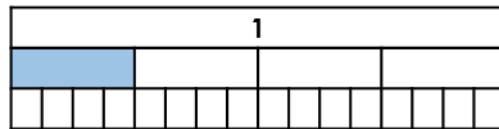
Prove it using the bar models.

D · R

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4a. What is the missing number? How did you know?

$$\frac{5}{7} \div \quad = \frac{5}{21}$$

1

4b. What is the missing number? How did you know?

$$\frac{9}{12} \div \quad = \frac{9}{24}$$

1
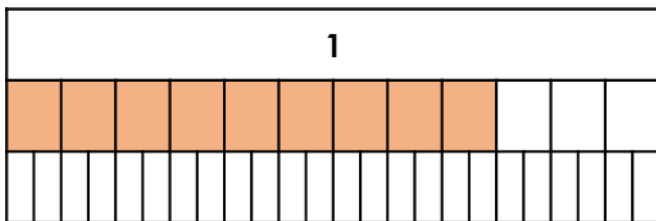
5a. Fill in the missing numbers to make the equation correct.

$$\frac{3}{\Box} \div \Box = \frac{3}{12}$$

Draw a model to help you.
Find 2 possible solutions.

5b. Fill in the missing numbers to make the equation correct.

$$\frac{4}{\Box} \div \Box = \frac{4}{30}$$

Draw a model to help you.
Find 2 possible solutions.

6a. Which statement is incorrect?

A. $\quad \frac{5}{6} \div 7 > \frac{5}{12} \div 8$

B. $\quad \frac{3}{5} \div 6 > \frac{3}{7} \div 2$

Draw models to prove your answer.

6b. Which statement is incorrect?

A. $\quad \frac{5}{9} \div 3 < \frac{5}{6} \div 4$

B. $\quad \frac{4}{6} \div 10 = \frac{4}{11} \div 5$

Draw models to prove your answer.

7a. What is the missing number? How did you know?

$$2 \frac{5}{7} \div \quad = \frac{19}{28}$$

R

7b. What is the missing number? How did you know?

$$3 \frac{9}{10} \div \quad = \frac{39}{80}$$

R

8a. Fill in the missing numbers to make the equation correct.

$$4 \frac{3}{\Box} \div \Box = \frac{19}{20}$$

Draw a model to help you.

PS

8b. Fill in the missing numbers to make the equation correct.

$$1 \frac{6}{\Box} \div \Box = \frac{13}{63}$$

Draw a model to help you.

PS

9a. Which statement is incorrect?

A. $\frac{19}{6} \div 7 \quad > \quad \frac{19}{12} \div 4$

B. $\frac{47}{5} \div 9 \quad = \quad \frac{47}{8} \div 6$

Draw models to prove your answer.

R

9b. Which statement is incorrect?

A. $\frac{37}{7} \div 8 \quad > \quad \frac{37}{5} \div 10$

B. $\frac{93}{9} \div 4 \quad > \quad \frac{93}{10} \div 5$

Draw models to prove your answer.

R

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Reasoning and Problem Solving – Divide Fractions by Integers 2 – Year 6 Greater Depth
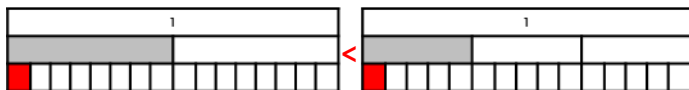
Reasoning and Problem Solving
Divide Fractions by Integers 2

Developing

1a. 5 because 6 x 5 = 30

2a. Various answers, for example: $\frac{1}{2} \div 4 = \frac{1}{8}$

3a. A is incorrect because $\frac{1}{16} < \frac{1}{15}$

Expected

4a. 3 because 7 x 3 = 21

5a. Various answers, for example:
$\frac{3}{6} \div 2 = \frac{3}{12}$; $\frac{3}{4} \div 3 = \frac{3}{12}$

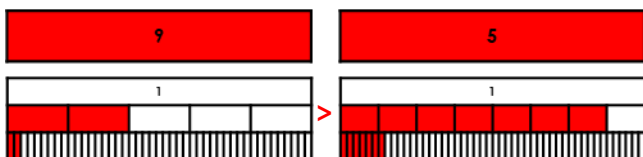**6a.** B is incorrect because $\frac{3}{30} < \frac{3}{14}$

Greater Depth

7a. 4 because 7 x 4 = 28

8a. $4\frac{3}{4} \div 5 = \frac{19}{20}$

9a. B is incorrect because $\frac{47}{45} > \frac{47}{48}$
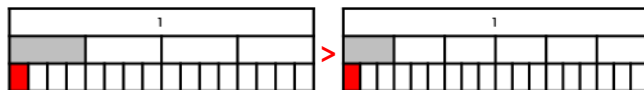

Reasoning and Problem Solving
Divide Fractions by Integers 2

Developing

1b. 2 because 10 x 2 = 20

2b. $\frac{1}{3} \div 3 = \frac{1}{9}$

3b. B is incorrect because $\frac{1}{16} > \frac{1}{18}$

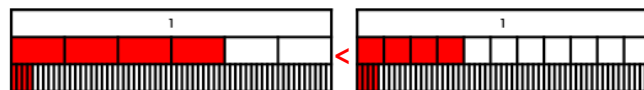## Expected

4b. 2 because 12 x 2 = 24

5b. Various answers, for example:
$\frac{4}{10} \div 3 = \frac{4}{30}$; $\frac{4}{5} \div 6 = \frac{4}{30}$

6b. B is incorrect because $\frac{4}{60} < \frac{4}{55}$

Greater Depth

7b. 8 because 10 x 8 = 80

8b. $1\frac{6}{7} \div 9 = \frac{13}{63}$

9b. A is incorrect because $\frac{37}{56} > \frac{37}{50}$