Dividing a fraction by an integer

Miss Parnham

Dividing a fraction by an integer

1. Divide the fractions.
Give answers in their simplest form.

a) $\dfrac{1}{3} \div 2$

b) $\dfrac{3}{8} \div 3$

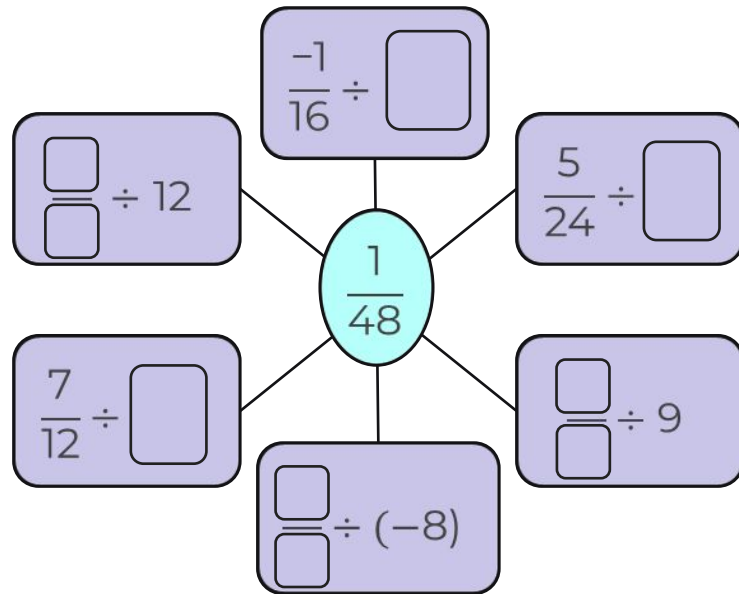c) $\dfrac{4}{9} \div 8$

d) $\dfrac{6}{7} \div 15$

e) $-\dfrac{5}{12} \div 7$

f) $\dfrac{3}{5} \div (-8)$

g) $\dfrac{8}{11} \div (-4)$

h) $-\dfrac{4}{15} \div (-8)$

2. All the divisions have the same solution. Find the missing values.

$\dfrac{-1}{16} \div \square$

$\dfrac{\square}{\square} \div 12$

$\dfrac{5}{24} \div \square$

$\dfrac{1}{48}$

$\dfrac{7}{12} \div \square$

$\dfrac{\square}{\square} \div 9$

$\dfrac{\square}{\square} \div (-8)$

Dividing a fraction by an integer

3. Divide the mixed numbers.
Give answers in their simplest form.

a) $1\frac{3}{8} \div 4$

b) $3\frac{5}{12} \div 3$

c) $4\frac{1}{2} \div 6$

d) $4\frac{4}{15} \div 8$
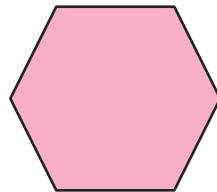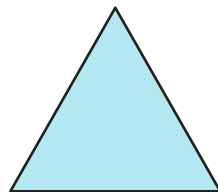
e) $-2\frac{5}{12} \div 3$

f) $3\frac{2}{15} \div (-6)$

g) $-2\frac{4}{9} \div 11$

h) $-4\frac{2}{3} \div (-7)$

4. The perimeter of all these **regular** shapes is $10\frac{1}{2}$ cm.
Find the side lengths.

5. Solve these equations.

$$5a = 6\frac{2}{3}$$

$$3b = -1\frac{7}{8}$$

$$-9c = -3\frac{3}{8}$$

Answers

Dividing a fraction by an integer

1. Divide the fractions.

Give answers in their simplest form.

a) $\dfrac{1}{3} \div 2 = \dfrac{1}{6}$

b) $\dfrac{3}{8} \div 3 = \dfrac{1}{8}$

c) $\dfrac{4}{9} \div 8 = \dfrac{1}{18}$

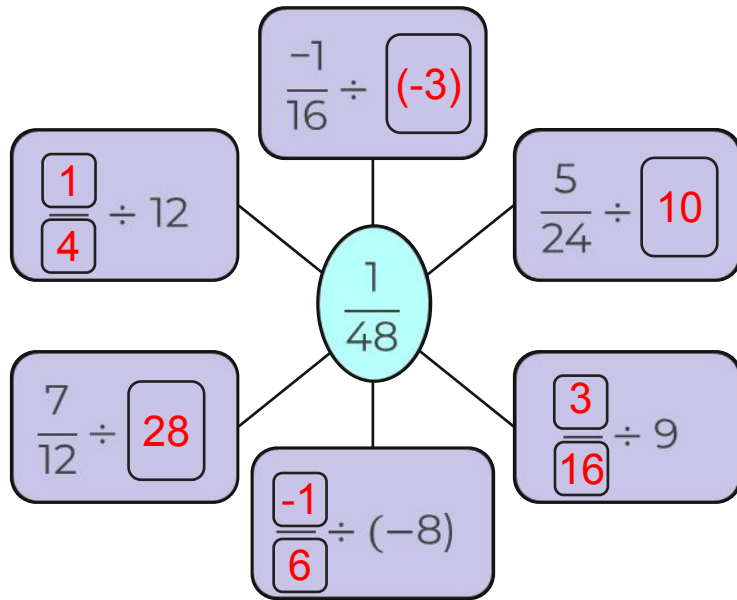d) $\dfrac{6}{7} \div 15 = \dfrac{2}{35}$

e) $-\dfrac{5}{12} \div 7 = -\dfrac{5}{84}$

f) $\dfrac{3}{5} \div (-8) = -\dfrac{3}{40}$

g) $\dfrac{8}{11} \div (-4) = -\dfrac{2}{11}$

h) $-\dfrac{4}{15} \div (-8) = \dfrac{1}{30}$

2. All the divisions have the same solution. Find the missing values.

$\dfrac{-1}{16} \div \boxed{(-3)}$

$\dfrac{1}{4} \div 12$

$\dfrac{5}{24} \div \boxed{10}$

$\dfrac{1}{48}$

$\dfrac{7}{12} \div \boxed{28}$

$\dfrac{-1}{6} \div (-8)$

$\dfrac{3}{16} \div 9$

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Dividing a fraction by an integer

3. Divide the mixed numbers.

Give answers in their simplest form.

a) $1\frac{3}{8} \div 4 = \frac{11}{32}$

b) $3\frac{5}{12} \div 3 = 1\frac{5}{36}$

c) $4\frac{1}{2} \div 6 = \frac{3}{4}$

d) $4\frac{4}{15} \div 8 = \frac{8}{15}$

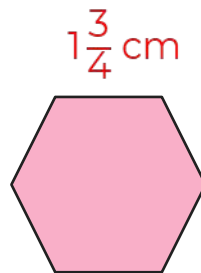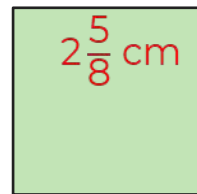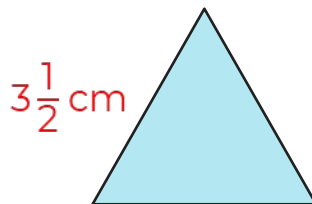e) $-2\frac{5}{12} \div 3 = -\frac{29}{36}$

f) $3\frac{2}{15} \div (-6) = -\frac{47}{90}$

g) $-2\frac{4}{9} \div 11 = -\frac{2}{9}$

h) $-4\frac{2}{3} \div (-7) = \frac{2}{3}$

4. The perimeter of all these **regular** shapes is $10\frac{1}{2}$ cm.

Find the side lengths.

$3\frac{1}{2}$ cm

$2\frac{5}{8}$ cm

$1\frac{3}{4}$ cm

5. Solve these equations.

$5a = 6\frac{2}{3}$ $3b = -1\frac{7}{8}$ $-9c = -3\frac{3}{8}$

$a = 1\frac{1}{3}$ $b = -\frac{5}{8}$ $c = \frac{3}{8}$