Maths

Multiplying a fraction by an integer

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Multiplying a fraction by an integer

1. Multiply the fractions and integers. Give answers as mixed numbers in their simplest form.

a) $5 \times \dfrac{1}{6}$

b) $\dfrac{3}{8} \times 2$

c) $4 \times -\dfrac{2}{3}$

d) $\dfrac{7}{12} \times 2$

e) $\dfrac{-3}{4} \times 8$

f) $15 \times \dfrac{4}{5}$

g) $10 \times \dfrac{8}{15}$

h) $\dfrac{-7}{18} \times -12$

2. Alex has two dogs.

Each day one dog eats $\dfrac{3}{4}$ of a tin of dog food and the other eats $\dfrac{1}{3}$ of a tin.

Alex needs a two week supply.
How many tins should she buy?

3. The same number is missing from both spaces, what is it?

$$\dfrac{3}{4} \times \boxed{} - \dfrac{2}{3} \times \boxed{} = 1$$

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4. Multiply the fractions and integers. Give answers as mixed numbers in their simplest form.

a) $1\frac{5}{9} \times 4$

b) $3 \times 2\frac{7}{8}$

c) $2 \times 1\frac{3}{4}$

d) $4 \times 2\frac{3}{8}$

e) $1\frac{7}{11} \times -3$

f) $-2\frac{5}{16} \times 4$

g) $5 \times -3\frac{3}{10}$

h) $-5\frac{7}{8} \times -6$

5. Rosie needs $1\frac{3}{5}$ m of fabric for each tablecloth she sews.
How much fabric does she need for 13 tablecloths?

6. Which product has a solution closest to 10?

$2\frac{3}{5} \times 4$ $3 \times 3\frac{2}{7}$ $-5 \times -1\frac{5}{6}$

Answers

Multiplying a fraction by an integer

1. Multiply the fractions and integers. Give answers as mixed numbers in their simplest form.

a) $5 \times \dfrac{1}{6} = \dfrac{5}{6}$

b) $\dfrac{3}{8} \times 2 = \dfrac{3}{4}$

c) $4 \times -\dfrac{2}{3} = -2\dfrac{2}{3}$

d) $\dfrac{7}{12} \times 2 = 1\dfrac{1}{6}$

e) $\dfrac{-3}{4} \times 8 = -6$

f) $15 \times \dfrac{4}{5} = 12$

g) $10 \times \dfrac{8}{15} = 5\dfrac{1}{3}$

h) $\dfrac{-7}{18} \times -12 = 4\dfrac{2}{3}$

2. Alex has two dogs.

Each day one dog eats $\dfrac{3}{4}$ of a tin of dog food and the other eats $\dfrac{1}{3}$ of a tin.

Alex needs a two week supply.

How many tins should she buy?

16 tins

$10\dfrac{1}{2} + 4\dfrac{2}{3} = 15\dfrac{1}{6}$

3. The same number is missing from both spaces, what is it?

$$\dfrac{3}{4} \times \boxed{12} - \dfrac{2}{3} \times \boxed{12} = 1$$

Multiplying a fraction by an integer

4. Multiply the fractions and integers. Give answers as mixed numbers in their simplest form.

a) $1\frac{5}{9} \times 4 = 6\frac{2}{9}$

b) $3 \times 2\frac{7}{8} = 8\frac{5}{8}$

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

d) $4 \times 2\frac{3}{8} = 9\frac{1}{2}$

e) $1\frac{7}{11} \times -3 = -4\frac{10}{11}$

f) $-2\frac{5}{16} \times 4 = -9\frac{1}{4}$

g) $5 \times -3\frac{3}{10} = -16\frac{1}{2}$

h) $-5\frac{7}{8} \times -6 = 35\frac{1}{4}$

5. Rosie needs $1\frac{3}{5}$ m of fabric for each tablecloth she sews.

How much fabric does she need for 13 tablecloths? $13 \times 1\frac{3}{5} = 20\frac{4}{5}$ m

6. Which product has a solution closest to 10?

$10\frac{2}{5}$ $9\frac{6}{7}$ $9\frac{1}{6}$

$2\frac{3}{5} \times 4$ $3 \times 3\frac{2}{7}$ $-5 \times -1\frac{5}{6}$