Multiplying Fractions by Whole Numbers

1 Calculate.

(a) $10 \times \dfrac{3}{5}$

$= 10 \times 3 \text{ fifths}$

$= 30 \text{ fifths}$

$= \dfrac{30}{5}$

$= \boxed{6}$

(b) $10 \times \dfrac{2}{3} = \boxed{10} \times \boxed{2} \text{ thirds}$

$= \boxed{20} \text{ thirds}$

$= \boxed{\dfrac{20}{3}}$

$= \boxed{6\dfrac{2}{3}}$

(c) $9 \times \dfrac{2}{7} = \boxed{9} \times \boxed{2} \text{ sevenths}$

$= \boxed{18} \text{ sevenths}$

$= \boxed{\dfrac{18}{7}}$

$= \boxed{2\dfrac{4}{7}}$

2 Calculate.

(a) $\frac{1}{6} \times 7 =$ $\frac{1}{6} \times \frac{7}{1} = \frac{7}{6}$

$= 1\frac{1}{6}$

(b) $\frac{1}{6} \times 8 =$ $\frac{1}{6} \times \frac{8}{1} = \frac{8}{6}$

$= 1\frac{1}{3}$

(c) $\frac{1}{6} \times 9 =$ $\frac{1}{6} \times \frac{9}{1} = \frac{9}{6}$

$= 1\frac{1}{2}$

3 Holly used $\frac{2}{3}$ m of ribbon to tie one parcel. How many metres of ribbon will she need for 5 similar parcels?

$\frac{2}{3} \times \frac{5}{1} = \frac{10}{3}$

$= 3\frac{1}{3}$

Jack and Whitney have some juice.

Jack drinks $2\frac{1}{4}$ litres and Whitney drinks $2\frac{5}{12}$ litres.

How much do they drink altogether?

Complete this using two different methods.

Which method do you think is more efficient? Why?

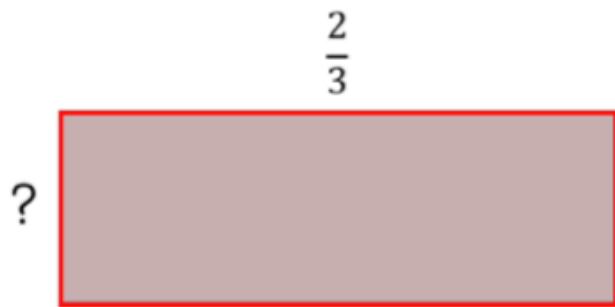Which subtraction is the odd one out?

A $\qquad \dfrac{13}{4} - \dfrac{3}{8}$

B $\qquad \dfrac{10}{3} - \dfrac{2}{9}$

C $\qquad \dfrac{23}{7} - \dfrac{1}{3}$

Explain why.

The perimeter of the rectangle is $\frac{16}{9}$

$$\frac{2}{3}$$

? ▭

Work out the missing length.

Fill in the missing numbers.

$$4 \frac{5}{6} + \boxed{\frac{}{}} = 10 \frac{1}{3}$$

Challenge answers below:

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$$\frac{23}{7} - \frac{1}{3}$$

Explain why.

Possible answers:

C is the odd one out because the denominators aren't multiples of each other.

A is the odd one out because the denominators are even.

B is the odd one out because it is the only answer above 3