

Multiply a fraction by an integer

1 Complete the calculations.

a) $5 \times 3 =$

c) $5 \times 3xy =$

b) $5 \times 3a =$

d) $5 \times \frac{3}{7} =$

2 Match the calculations to the correct answers.

$3 \times \frac{2}{5}$

$\frac{6}{15}$

$\frac{3}{4} \times 5$

$\frac{8}{5}$

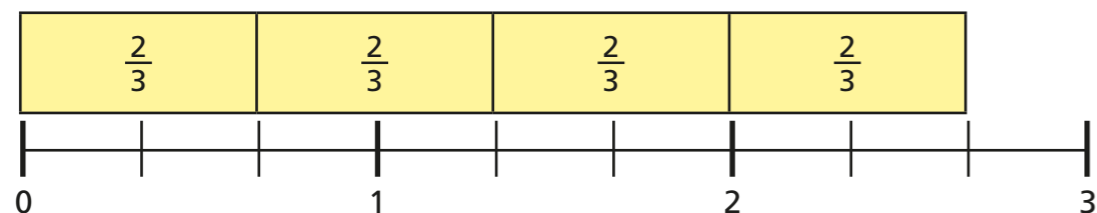
$\frac{1}{15} \times 6$

$\frac{15}{4}$

$\frac{4}{5} \times 2$

$\frac{6}{5}$

3 This diagram represents $4 \times \frac{2}{3} = \frac{8}{3} = 2 \frac{2}{3}$



Draw diagrams to represent the calculations.

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

b) $6 \times \frac{2}{3} = \frac{12}{3} = 4$

4 Convert the improper fractions to mixed numbers.

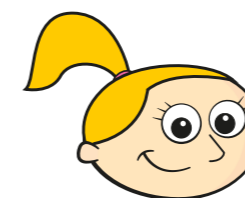
a) $\frac{5}{2} =$

c) $\frac{18}{5} =$

b) $\frac{11}{4} =$

d) $\frac{30}{6} =$

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$4 \times \frac{3}{5} = \frac{12}{20}$ because
 $4 \times 3 = 12$ and
 $4 \times 5 = 20$

Explain why Eva is wrong.

6

Complete the calculations.

Give your answers as mixed numbers in their simplest form where appropriate.

a) $7 \times \frac{1}{2} =$

f) $9 \times \frac{3}{4} =$

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

g) $\frac{2}{17} \times 6 =$

c) $\frac{5}{8} \times 3 =$

h) $\frac{2}{3} \times 10 =$

d) $\frac{5}{8} \times 4 =$

i) $12 \times \frac{5}{6} =$

e) $\frac{5}{8} \times 8 =$

j) $18 \times \frac{1}{3} =$

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Give your answers as mixed numbers in their simplest form where appropriate.

a) A piece of wood is $\frac{4}{5}$ m long.

How long are six of these pieces of wood, placed end-to-end?

b) At a school, lunchtime is $\frac{3}{4}$ hour.

What is the total time taken for lunch over a full school week?

c) Rosie buys 10 bags of dried fruit.

Each bag weighs $\frac{2}{5}$ kg.

What is the total weight of all 10 bags?

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Find the missing numbers in these calculations.

a) $\frac{2}{7} \times$ $= \frac{6}{7}$

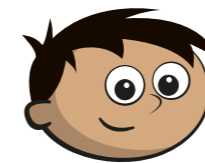
d) $5 \times$ $=$ $= 3\frac{1}{8}$

b) $\frac{3}{8} \times$ $= \frac{15}{8} = 1\frac{7}{8}$

e) $6 \times$ $= \frac{\text{input}}{4} = 4\frac{1}{2}$

c) $6 \times$ $= \frac{18}{11} =$

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I know these all have the same answer without having to work them all out.

$8 \times \frac{4}{5}$

$4 \times \frac{8}{5}$

$2 \times 0.8 \times 4$

$\frac{2}{5} \times 16$

How does Amir know these calculations are equivalent?

Compare answers with a partner.