Multiply mixed numbers by integers
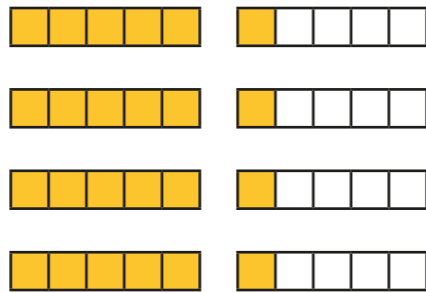
1 Complete the calculations.

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

$4 \times 1 = \boxed{4}$

$4 \times \frac{1}{5} = \boxed{\frac{4}{5}}$

$\boxed{4} + \boxed{\frac{4}{5}} = \boxed{4\frac{4}{5}}$

b) $4 \times 2\frac{1}{5}$

$\boxed{4} \times 2 = \boxed{8}$

$4 \times \boxed{\frac{1}{5}} = \boxed{\frac{4}{5}}$

$\boxed{8} + \boxed{\frac{4}{5}} = \boxed{8\frac{4}{5}}$
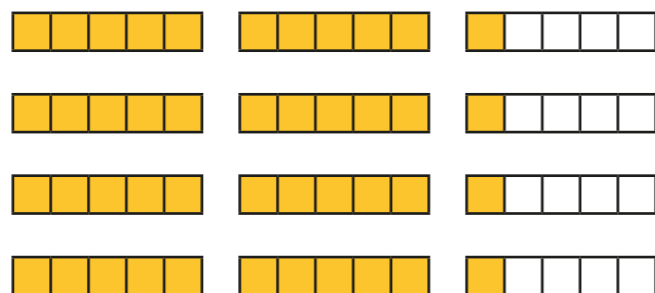
c) $4 \times 2\frac{2}{5}$

$\boxed{4} \times \boxed{2} = \boxed{8}$

$4 \times \boxed{\frac{2}{5}} = \boxed{\frac{8}{5}} = \boxed{1\frac{3}{5}}$

$\boxed{8} + \boxed{1\frac{3}{5}} = \boxed{9\frac{3}{5}}$
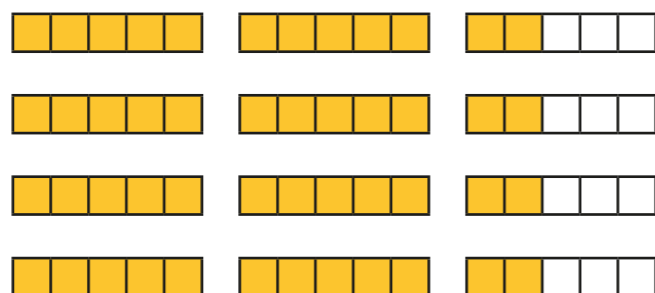
d) $4 \times 2\frac{2}{3}$

$\boxed{4} \times \boxed{2} = \boxed{8}$

$\boxed{4} \times \boxed{\frac{2}{3}} = \boxed{\frac{8}{3}} = \boxed{2\frac{2}{3}}$

$\boxed{8} + \boxed{2\frac{2}{3}} = \boxed{10\frac{2}{3}}$
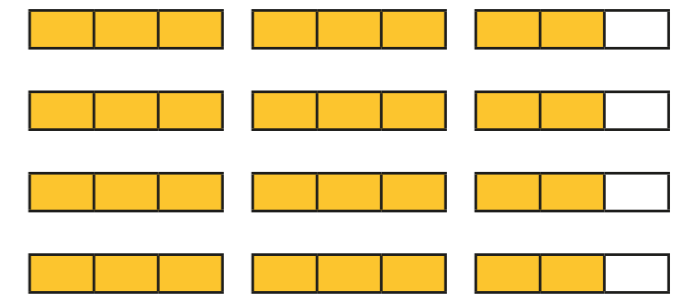
2 Complete the multiplications.

a) $3 \times 8\frac{2}{7} = \boxed{24\frac{6}{7}}$

d) $4 \times 6\frac{3}{19} = \boxed{24\frac{12}{19}}$

b) $2 \times 12\frac{2}{11} = \boxed{24\frac{4}{11}}$

e) $2\frac{2}{25} \times 12 = \boxed{24\frac{24}{25}}$

c) $6\frac{2}{11} \times 4 = \boxed{24\frac{8}{11}}$

f) $3\frac{1}{15} \times 8 = \boxed{24\frac{8}{15}}$

What is the same and what is different about your answers?

They all contain 24 wholes but the fraction is different.

3 One bag of potatoes weighs $1\frac{3}{4}$ kg.

How much do 5 bags of potatoes weigh?

$\boxed{8\frac{3}{4}}$ kg

4 Complete the calculations.

a) $5 \times 2\frac{2}{3} = 10 + \frac{10}{3} = \boxed{13\frac{1}{3}}$

b) $4\frac{3}{7} \times 5 = 20 + \boxed{\frac{15}{7}} = \boxed{22\frac{1}{7}}$

c) $8 \times 2\frac{5}{12} = \boxed{16} + \boxed{\frac{40}{12}} = \boxed{19\frac{1}{3}}$

d) $7 \times 3\frac{1}{5} = \boxed{21} + \boxed{\frac{7}{5}} = \boxed{22\frac{2}{5}}$

e) $4\frac{2}{9} \times 8 = \boxed{32} + \boxed{\frac{16}{9}} = \boxed{33\frac{7}{9}}$

f) $11 \times 4\frac{3}{10} = \boxed{44} + \boxed{\frac{33}{10}} = \boxed{47\frac{3}{10}}$

5

$5 \times 3\frac{2}{11}$ is equal to

$3 \times 5\frac{2}{11}$
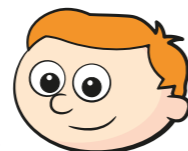
Do you agree with Ron? __No__

Explain why.

$5 \times 3\frac{2}{11} = 15\frac{10}{11}$

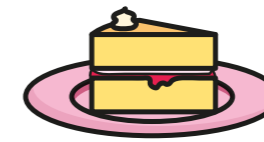$3 \times 5\frac{2}{11} = 15\frac{6}{11}$

6 Eva drinks $3\frac{1}{3}$ litres of water a day.

How many litres of water does she drink in a week?

$\boxed{23\frac{1}{3}}$ l

7 Here is a recipe for a birthday cake.

Butter $1\frac{3}{8}$ kg

Sugar $1\frac{5}{16}$ kg

Self-raising flour $2\frac{1}{4}$ kg

6 eggs

Flour

a) How much flour is needed for 3 birthday cakes?

$\boxed{6\frac{3}{4}}$ kg

b) Dora makes 4 birthday cakes.

How much more butter does she use than sugar?

$\boxed{\frac{1}{4}}$ kg