Multiply mixed numbers by integers

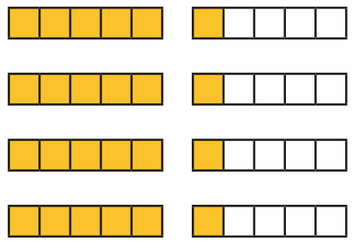
1 Complete the calculations.

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

$4 \times 1 =$ 4

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

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

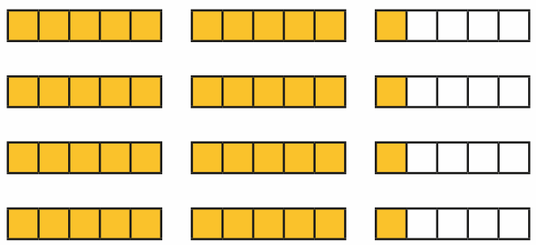


b) $4 \times 2\frac{1}{5}$

4 × 2 = 8

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

8 + $\frac{4}{5}$ = $8\frac{4}{5}$

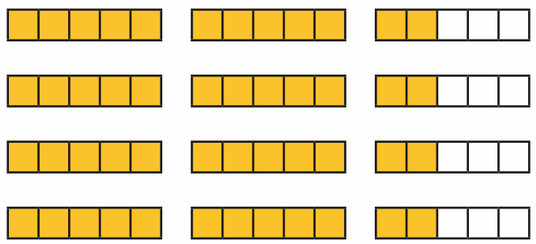


c) $4 \times 2\frac{2}{5}$

4 × 2 = 8

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

8 + $1\frac{3}{5}$ = $9\frac{3}{5}$

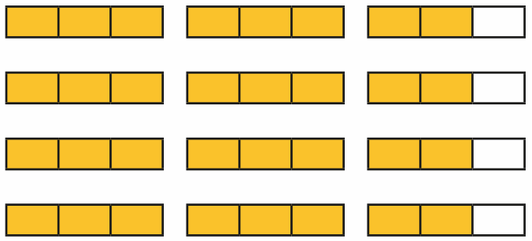


d) $4 \times 2\frac{2}{3}$

4 × 2 = 8

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

8 + $2\frac{2}{3}$ = $10\frac{2}{3}$



2 Complete the multiplications.

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

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

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

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

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

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

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

They all contain 24 wholes but the fraction is diffent

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

How much do 5 bags of potatoes weigh?

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

4 Complete the calculations.

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

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

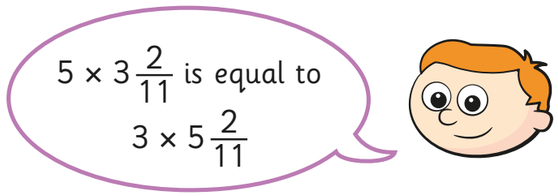
c) $8 \times 2\frac{5}{12} =$ 16 $+$ $\frac{40}{12}$ $=$ $19\frac{1}{3}$

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

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

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

5



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?

$23\frac{1}{3}$ 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

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

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

b) Dora makes 4 birthday cakes.

How much more butter does she use than sugar?

$\frac{1}{4}$ kg