Multiply and dividing fractions

1. Work out $\frac{1}{3} \times \frac{1}{6}$.
   Give your answer in its simplest form.

   $$\frac{1}{18}$$

   (2 marks)

2. Calculate $\frac{1}{4} \times \frac{2}{5}$.
   Give your answer in its simplest form.

   $$\frac{2}{20} = \frac{1}{10}$$

   (2 marks)

3. Calculate $\frac{1}{10} \div 5$.
   Give your answer as a simplified fraction.

   $$\frac{1}{10} \times \frac{1}{5} = \frac{1}{50}$$

   (2 marks)

Multiply and dividing fractions

4.   Work out $\frac{5}{7} \div \frac{4}{5}$.

Give your answer in its simplest form.

$$\frac{5}{7} \times \frac{5}{4} = \frac{25}{28}$$

(2 marks)

5.   Work out $\frac{5}{6} \times 2$.

Give your answer in its simplest form.

$$\frac{5}{6} \times \frac{2}{1} = \frac{10}{6} = 1\frac{2}{3}$$

(3 marks)

6.   Calculate $\frac{7}{12} \times \frac{3}{7}$, .

Give your answer as a mixed number.

$$\frac{21}{84} = \frac{1}{4}$$

(2 marks)

Multiply and dividing fractions

7.   Work out $2\frac{1}{3} \times 1\frac{1}{2}$.
      Give your answer as a fraction in its simplest form.

$$\frac{7}{3} \times \frac{3}{2} = \frac{21}{6} = 3\frac{1}{2}$$

                                                      (3 marks)

8.   Calculate $3\frac{1}{4} \times 1\frac{2}{5}$.
      Give your answer as a mixed number in its simplest form.

$$\frac{13}{4} \times \frac{7}{5} = \frac{91}{20} = 4\frac{11}{20}$$

                                                      (3 marks)

9.   Work out $5\frac{2}{3} \div 2\frac{1}{2}$.
      Give your answer as a simplified mixed number.

$$\frac{17}{3} \times \frac{2}{5} = \frac{34}{15} = 2\frac{4}{15}$$

                                                      (3 marks)
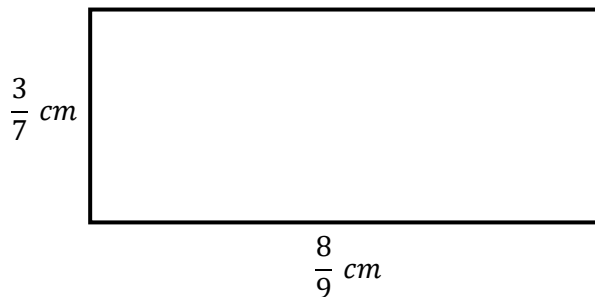
Multiply and dividing fractions

10.   Work out $\frac{1}{5} \times \frac{3}{8} \div \frac{1}{3}$.
       Give your answer in its simplest form.

$$\frac{3}{40} \times \frac{3}{1} = \frac{9}{40}$$

(3 marks)

11.   Below is a rectangle.
       Find the area of the rectangle.
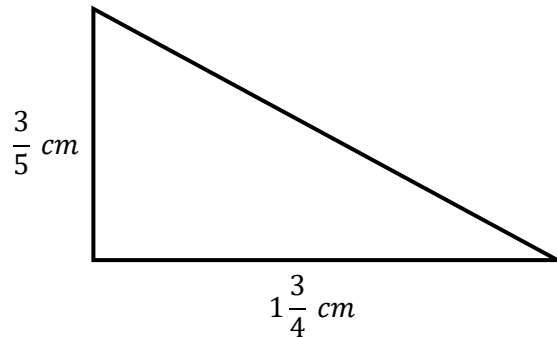   Give your answer as a fraction in its simplest form.

$\frac{3}{7}$ cm

$\frac{8}{9}$ cm

$$\frac{3}{7} \times \frac{8}{9} = \frac{24}{63} = \frac{8}{21} cm^2$$

(3 marks)

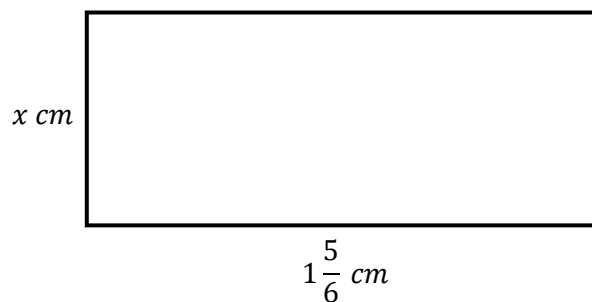# Multiply and dividing fractions

12.   Below is a triangle.
Find the area of the triangle.
Give your answer as a fraction in its simplest form.

$$\left(\frac{7}{4} \times \frac{3}{5}\right) \div 2 = \frac{21}{20} \times \frac{1}{2} = \frac{21}{40} cm^2$$

(3 marks)

13.   Below is a rectangle.
The area of the rectangle is $2\frac{1}{3} \ cm^2$.
Find x.
Give your answer as a fraction in its simplest form.

$$\frac{7}{3} \div \frac{11}{6} = \frac{7}{3} \times \frac{6}{11} = \frac{14}{11} = 1\frac{3}{11} \ cm^2$$

(3 marks)

Multiply and dividing fractions

14.   Jill has a cat called Ellie.

Ellie eats $\frac{2}{3}$ of a tin of cat food every day.

How many tins of cat food will Jill need to feed Ellie for a week?

$$\frac{2}{3} \times \frac{7}{1} = \frac{14}{3} = 4\frac{2}{3} = 5 \ tins$$

(3 marks)

15.   Daniel wants to paint a wall which measures
$4\frac{4}{5}m \times 3\frac{1}{6}m$

The tin of paint costs £12.99

The tin covers $5m^2$.

How much will it cost Daniel to paint his wall?

$$\frac{24}{5} \times \frac{19}{6} = \frac{456}{30} = \frac{76}{5} = 15\frac{1}{5}m^2$$

Will need 4 tins of paint.
£12.99× 4 = £51.96

(4 marks)