

**1**

Calculate.

*(Calculation skill)*

(1)  $0.3 \times 0.7$

(2)  $58.9 \div 0.19$

(3)  $\frac{1}{6} + \frac{1}{12}$

(4)  $2\frac{1}{9} - \frac{2}{3}$

(5)  $\frac{7}{18} \times 3$

(6)  $\frac{4}{7} \div 2$

(7)  $\frac{3}{16} \times \frac{4}{15}$

(8)  $3\frac{1}{8} \div 1\frac{1}{4}$

**2**

Answer the following.

(9) Find the greatest common factor (GCF) of 18 and 30.

(10) Find the least common multiple (LCM) of 9, 18, and 45.

**3**

Write each of the following ratios in simplest form.

(11)  $24 : 40$

(12)  $1.4 : 7$

**4**

Fill in the blanks.

(13)  $4 : 7 = \square : 49$

(14)  $150 \text{ cm} = \square \text{ m}$

(15)  $1.8 \text{ m}^2 = \square \text{ cm}^2$

**5**

Mae and her brother paint a wall that is  $30 \text{ m}^2$ . Answer the following when 2 L of paint can cover  $10 \text{ m}^2$ .

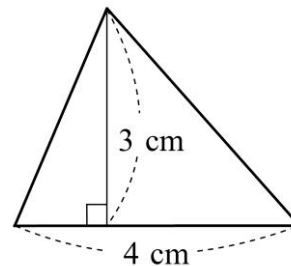
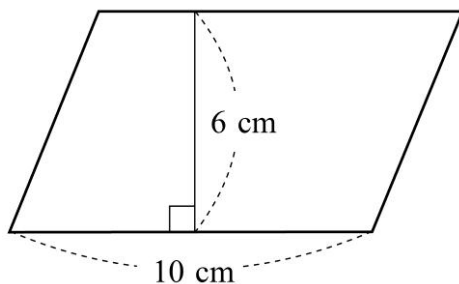
- (16) Find the area, in  $\text{m}^2$ , of the wall that can be painted with 1 L of paint.
- (17) If  $\triangle \text{ m}^2$  of the wall can be painted with  $\square \text{ L}$  of paint, express the relationship between  $\square$  and  $\triangle$  as an equation. (*Expression skill*)
- (18) Mae paints  $10 \text{ m}^2$  of the wall and her brother paints  $20 \text{ m}^2$  of the wall. How many L of paint does her brother use?

**6**

Find the area, in  $\text{cm}^2$ , of each of the following figures.

(19) Parallelogram

(20) Triangle

**7**

The table shows the time, in minutes, taken to walk to school from each home of 35 students in David's class.

(*Statistical skill*)

- (21) Find the number for A.
- (22) How many students take 15 minutes or more?

Time (min.)	Number of students
0 – less than 5	8
5 – less than 10	10
10 – less than 15	A
15 – less than 20	6
20 or more	4
Total	35

- (23) What percent of the students have times less than 10 minutes? Round your answer off to the nearest integer.

**8**

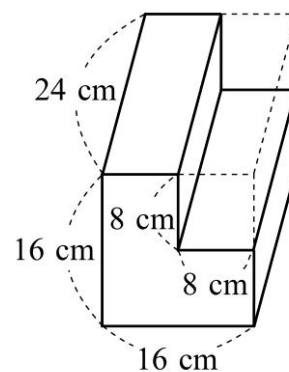
Judy uses flour and sugar to make a cake. She mixes them so that the weight ratio of flour to sugar is 5:2.

- (24) If she uses 100 g of flour, how many g of sugar does she need?
- (25) If she uses 80 g of sugar, how many g of flour does she need?
- (26) If the total amount of flour and sugar is 210 g, how many g of sugar does she use?

**9**

The figure on the right shows a solid that is created by removing a smaller rectangular prism from the larger rectangular prism.

- (27) Find the volume, in  $\text{cm}^3$ , of the removed smaller rectangular prism.
- (28) Find the volume, in  $\text{cm}^3$ , of the solid. Write the steps leading to your answer.

**10**

In the following calculation, letters A, B and C are integers.

$$\frac{1}{A} + \frac{1}{B} + \frac{1}{C} = 1$$

- (29) If A, B and C are the same integer, find the integer.
- (30) If A is 2 and B and C are different integers from 3 to 9, find the integers for B and C.