

- (f) $\frac{1}{5}$ of the passengers on a bus are young adults and $\frac{2}{3}$ of them are children. The remaining passengers are senior citizens. What fraction of the passengers are not senior citizens?
- (g) A flight of stairs is $10\frac{1}{3}$ m high. Jimmy walks down the stairs and still has $6\frac{5}{8}$ m of stairs to go before he reaches the bottom of the flight of stairs. How far down has he walked?
- (h) Emelia mixed $3\frac{1}{4}$ liters of fruit juice with $2\frac{3}{5}$ liters of ice-cream soda to make fruit punch. How much fruit punch did she mix?

8. Find the equivalent measures.

- | | |
|---------------------------------------|-----------------------------------|
| (a) $\frac{4}{5}$ m = _____ cm | (b) $\frac{2}{3}$ h = _____ min |
| (c) $\frac{3}{4}$ kg = _____ g | (d) $\frac{5}{8}$ day = _____ h |
| (e) $\frac{3}{5}$ km = _____ m | (f) $\frac{2}{3}$ yd = _____ ft |
| (g) $\frac{1}{3}$ year = _____ months | (h) $\frac{11}{12}$ min = _____ s |

9. Give the answers in compound units.

- (a) $3\frac{1}{8}$ km = _____ km _____ m
- (b) $4\frac{1}{4}$ ft = _____ ft _____ in.

7. Fill in the missing numbers.

(a) $5 : 3 = 20 : \underline{\hspace{2cm}}$

(b) $\underline{\hspace{2cm}} : 3 = 10 : 15$

(c) $6 : 15 = \underline{\hspace{2cm}} : 5$

(d) $3 : \underline{\hspace{2cm}} = 6 : 14$

(e) $24 : 3 = \underline{\hspace{2cm}} : 9$

(f) $20 : \underline{\hspace{2cm}} = 5 : 2$

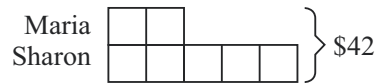
(g) $\underline{\hspace{2cm}} : 56 = 2 : 7$

(h) $30 : 14 = 15 : \underline{\hspace{2cm}}$

8. Draw models to solve each of the following questions.

Example:

Sharon and Maria share \$42 in the ratio 5 : 2.



(a) The ratio of the number of swimmers to the number of non-swimmers is 4 : 1. There are 28 swimmers. How many non-swimmers are there?

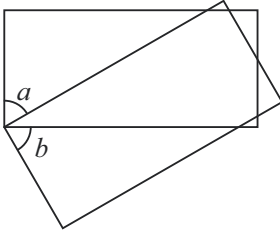
(b) The length of a rectangle is three times as long as its width. The length is 6 cm longer than its width. Find the perimeter of the rectangle.

(c) A television set and a CD player weigh a total of 45 kg in the ratio 7 : 2 respectively. How much heavier is the television set than the CD player?

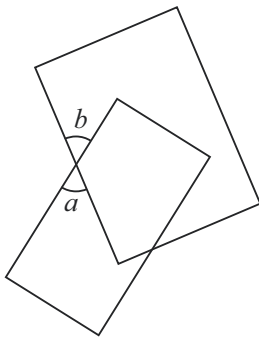
(d) Andy saved $\frac{1}{3}$ of his daily pocket money (that is, the ratio of the amount of his savings to the amount of his pocket money is 1 : 3). He spent \$10 more than he saved. How much was Andy's daily pocket money?

2. In each of the following figures, two rectangles overlap one another as shown. Can you explain why $\angle a = \angle b$ without using the property that vertically opposite angles are equal?

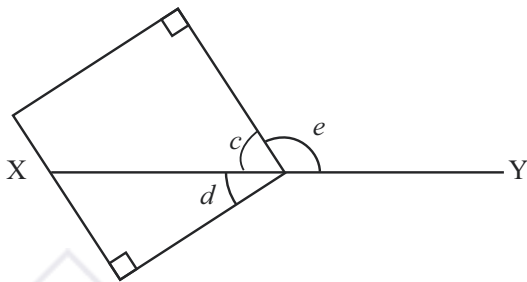
(a)



(b)



3. In the figure, a straight line XY passes through a square as shown. Which one of the following shows the correct value of $\angle d$?
Check (\checkmark) the correct option.



- (a) $180^\circ - \angle e$ _____
- (b) $\angle e + 90^\circ$ _____
- (c) $270^\circ - \angle c - \angle e$ _____
- (d) $\angle e - 90^\circ$ _____