

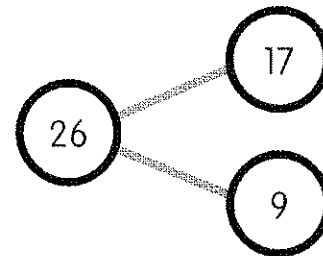
Reteach Ratio

Activity 1 Finding Ratio

Use the number bond to fill in each blank.

1 $26 - 17 = \underline{\hspace{2cm}}$

2 $\underline{\hspace{2cm}}$ is 9 less than 26.

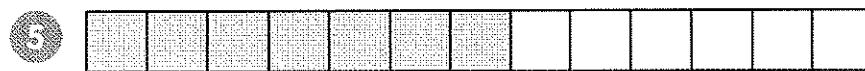


3 26 is 17 more than $\underline{\hspace{2cm}}$.

State how many parts of the whole are represented by each fraction.



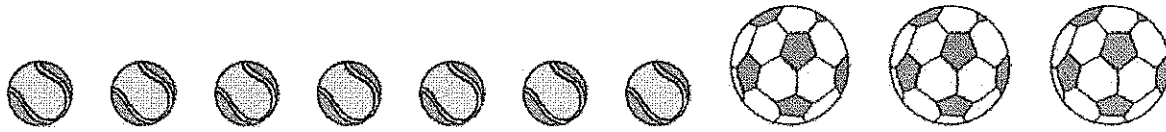
$\frac{4}{9}$ is $\underline{\hspace{2cm}}$ out of $\underline{\hspace{2cm}}$ parts.



$\frac{7}{13}$ is $\underline{\hspace{2cm}}$ out of $\underline{\hspace{2cm}}$ parts.

Fill in each blank.

Example

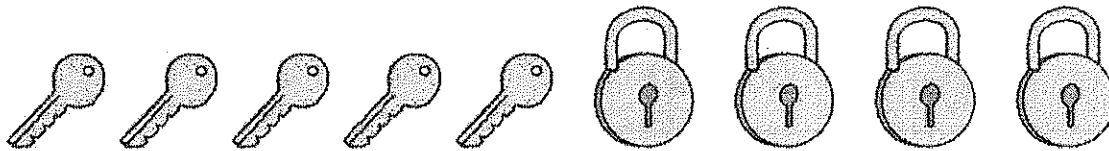


- a There are 7 tennis balls and 3 soccer balls.
- b The ratio of the number of tennis balls to the number of soccer balls is 7 : 3.
- c The ratio of the number of soccer balls to the number of tennis balls is 3 : 7.

Count the number of each item.

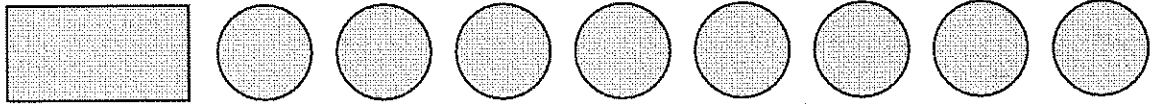


6



- a There are _____ keys and _____ locks.
- b The ratio of the number of keys to the number of locks is _____ : _____.
- c The ratio of the number of locks to the number of keys is _____ : _____.

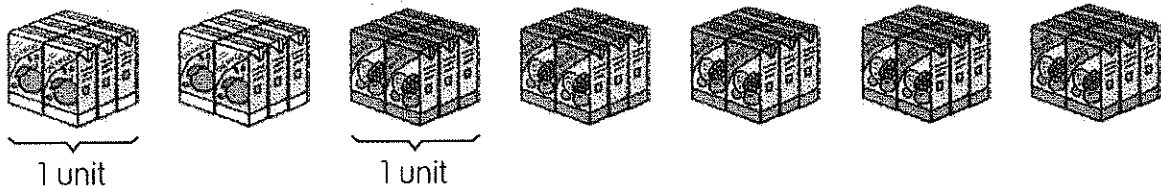
7



- a The ratio of the number of rectangle to the number of circles is _____ : _____.
- b The ratio of the number of circles to the number of rectangle is _____ : _____.

Fill in each blank.

Example



- a The ratio of the number of packets of orange juice to the number of packets of mixed berry juice is 2 : 5.
- b The ratio of the number of packets of mixed berry juice to the number of packets of orange juice is 5 : 2.

The number of items in each unit is the same. A ratio may not give the actual number of items in each packet.



8

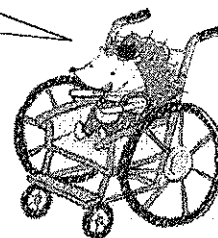


- a The ratio of the number of strawberries to the number of apricots is _____ : _____.
- b The ratio of the number of apricots to the number of strawberries is _____ : _____.

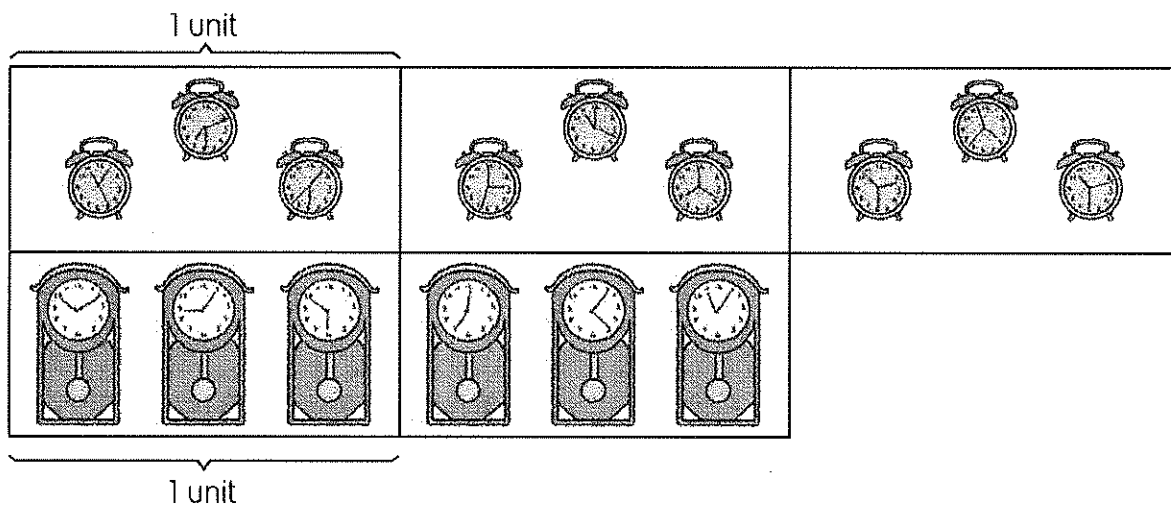
1 unit represents the number of fruit on a plate.

_____ units represent the number of strawberries.

_____ units represent the number of apricots.



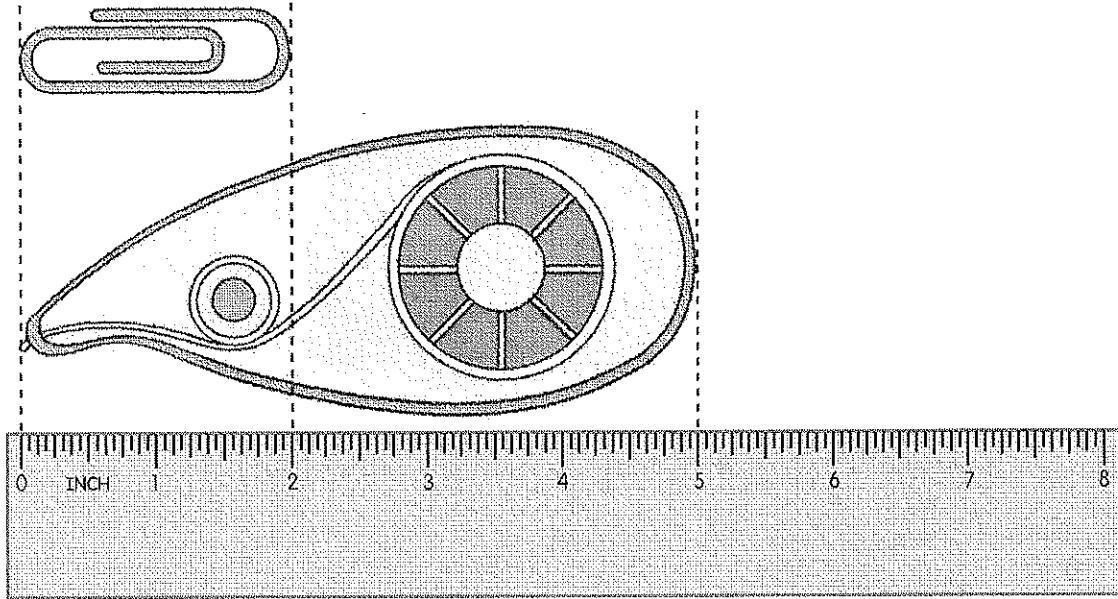
9



- a The ratio of the number of alarm clocks to the number of antique clocks is _____ : _____.
- b The ratio of the number of antique clocks to the number of alarm clocks is _____ : _____.

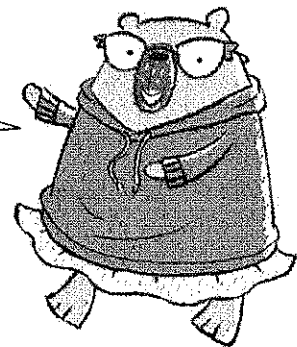
Fill in each blank.

Example

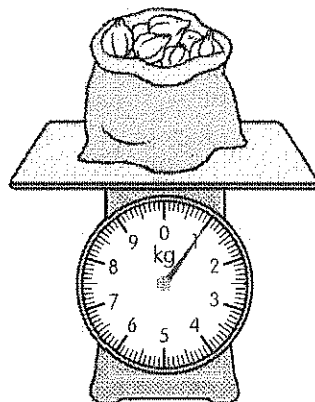
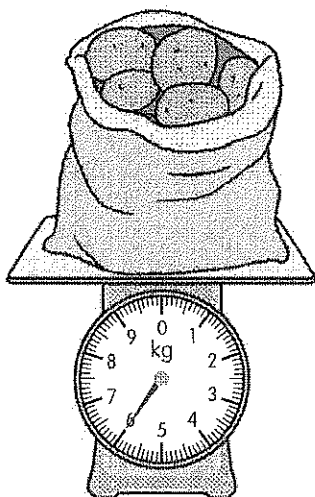


- a The ratio of the length of the paper clip to the length of the correction tape is $2 : 5$.
- b The ratio of the length of the correction tape to the length of the paper clip is $5 : 2$.

To compare the lengths, they must be in the same unit. However, we do not include the unit in the ratio.



10



- a The ratio of the mass of potatoes to the mass of garlic is _____ : _____.
- b The ratio of the mass of garlic to the mass of potatoes is _____ : _____.

11

Samuel takes 7 minutes to walk from his house to the playground. Mason takes 13 minutes to walk from his house to the playground.

- a The ratio of the time Samuel takes to the time Mason takes is _____ : _____.
- b The ratio of the time Mason takes to the time Samuel takes is _____ : _____.

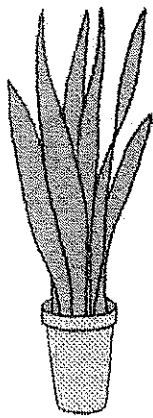
12

There are 14 gallons of water in a barrel and 3 gallons of water in a pail.

- a The ratio of the amount of water in the barrel to the amount of water in the pail is _____ : _____.
- b The ratio of the amount of water in the pail to the amount of water in the barrel is _____ : _____.

Fill in each blank.

Example



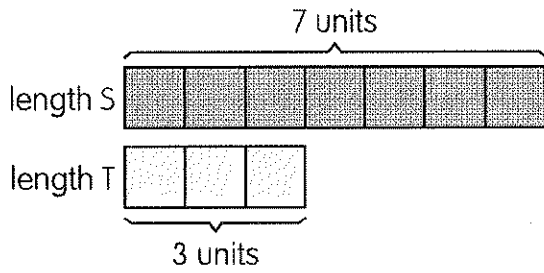
snake plant



roses

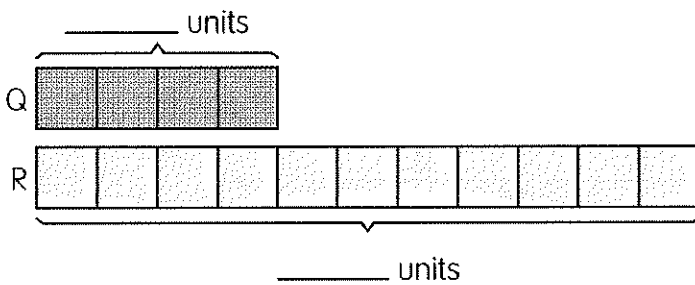
- a Total height of both plants = 11 units
- b The ratio of the height of the snake plant to the height of the roses is 8 : 3.
- c The ratio of the height of the roses to the height of the snake plant is 3 : 8.
- d The ratio of the total height of the snake plant and roses to the height of the snake plant is 11 : 8.
- e The ratio of the height of roses to the total height of the snake plant and roses is 3 : 11.

13



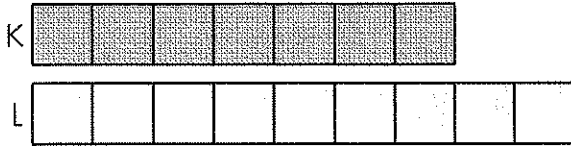
- a Total = _____ units
- b The ratio of length S to length T is _____ : _____.
- c The ratio of length T to length S is _____ : _____.
- d The ratio of length S to the total length of S and T is _____ : _____.
- e The ratio of the total length of S and T to length T is _____ : _____.

14



- a Total = _____ units
- b Q : R = _____ : _____
- c R : Q = _____ : _____
- d Q : Total = _____ : _____
- e Total : R = _____ : _____

15

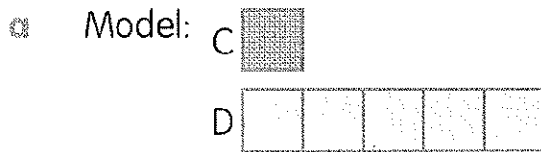


- a Total = _____ units
- b $K : L = \underline{\hspace{2cm}} : \underline{\hspace{2cm}}$
- c $L : K = \underline{\hspace{2cm}} : \underline{\hspace{2cm}}$
- d $K : \text{Total} = \underline{\hspace{2cm}} : \underline{\hspace{2cm}}$
- e $\text{Total} : L = \underline{\hspace{2cm}} : \underline{\hspace{2cm}}$

Draw a model to show the ratio. Then, fill in each blank.

Example

$C : D = 1 : 5$



The ratio shows C is represented by 1 unit and D is represented by 5 units.



- b Total = 6 units
- c $C : \text{Total} = \underline{1} : \underline{6}$
- d $\text{Total} : D = \underline{6} : \underline{5}$

b $G : H = 6 : 7$

a Model:

b Total = _____ units

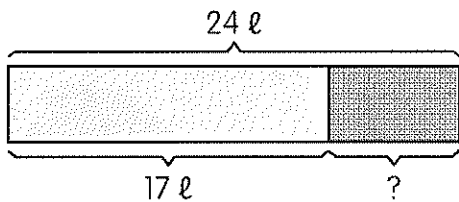
c $G : \text{Total} = \text{_____} : \text{_____}$

d $\text{Total} : H = \text{_____} : \text{_____}$

Solve.

Example

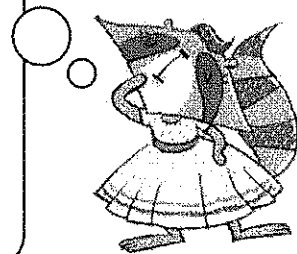
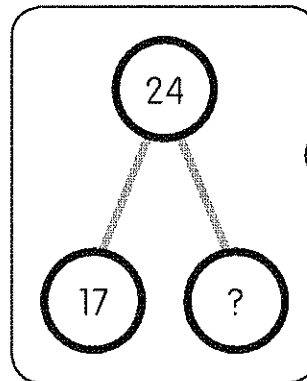
Ms. Kelly has 24 liters of lemonade. She pours 17 liters of lemonade into the dispenser and the rest of the lemonade in a jug. Find the ratio of the volume of lemonade in the dispenser to the volume of lemonade in the jug.



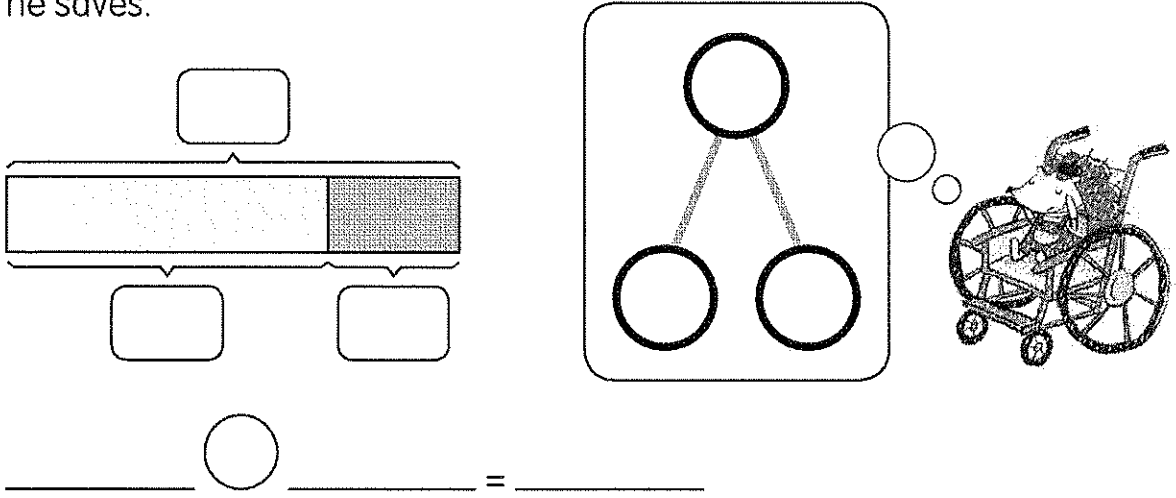
$$\underline{24} - \underline{17} = \underline{7}$$

The volume of lemonade in the jug is 7 liters.

The ratio of the volume of lemonade in the dispenser to the volume of lemonade in the jug is 17 : 7.



- 17 Rafael has \$33 for his weekly allowance. He spends \$26 and saves the rest. Find the ratio of the amount of money he spends to the amount of money he saves.



He saves _____.

The ratio of the amount of money he spends to the amount of money he saves is _____ : _____.

- 18 Mr. Morgan has 46 pens. 29 of the pens are blue and the rest are green. Find the ratio of the number of blue pens to the number of green pens.

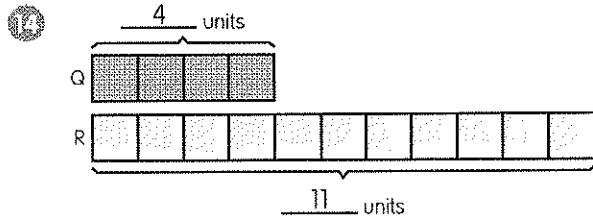
Chapter 9 Ratio

Activity 1 Finding Ratio

- ① 9
- ② 17
- ③ 9
- ④ $\frac{4}{9}$ is 4 out of 9 parts.
- ⑤ $\frac{7}{13}$ is 7 out of 13 parts.
- ⑥ a 5 keys and 4 locks
 b 5 : 4
 c 4 : 5
- ⑦ a 1 : 8
 b 8 : 1
- ⑧ 4 units represent the number of strawberries.
3 units represent the number of apricots.
 a 4 : 3
 b 3 : 4
- ⑨ a 3 : 2
 b 2 : 3
- ⑩ a 6 : 1
 b 1 : 6
- ⑪ a 7 : 13
 b 13 : 7

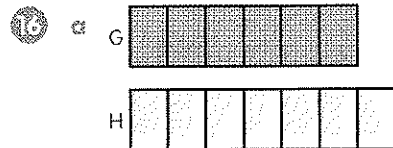
- 12 a $\frac{14}{3} : \frac{3}{14}$
 b $\frac{3}{14} : \frac{14}{3}$

- 13 a 10 units
 b 7 : 3
 c 3 : 7
 d 7 : 10
 e 10 : 3

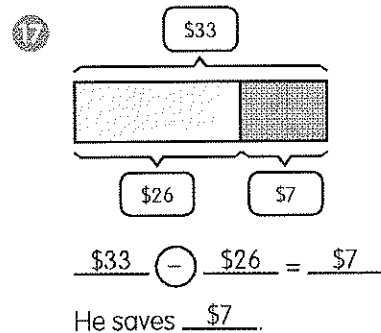


- a 15 units
 b 4 : 11
 c 11 : 4
 d 4 : 15
 e 15 : 11

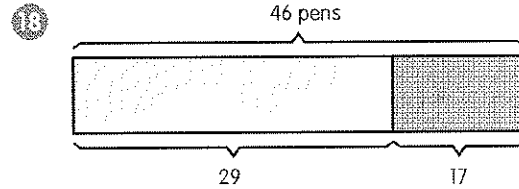
- 15 a 16 units
 b 7 : 9
 c 9 : 7
 d 7 : 16
 e 16 : 9



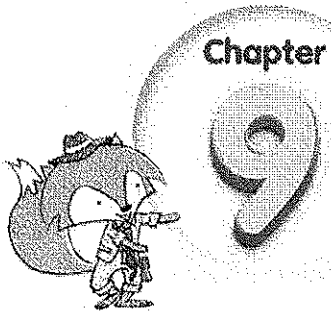
- b 13 units
 c 6 : 13
 d 13 : 7



The ratio of the amount of money he spends to the amount of money he saves is $\frac{26}{7} : \frac{7}{26}$.



$46 - 29 = 17$
 Mr. Morgan has 17 green pens.
 The ratio of the number of blue pens to the number of green pens is 29 : 17.



Reteach

Ratio

Activity 2 Equivalent Ratios

Write each fraction in simplest form.

$$1 \quad \frac{12}{16} =$$

$$2 \quad \frac{10}{35} =$$

Use multiplication to find each equivalent fraction.

$$3 \quad \frac{3}{5} = \frac{\square}{15}$$

$$4 \quad \frac{7}{12} = \frac{14}{\square}$$

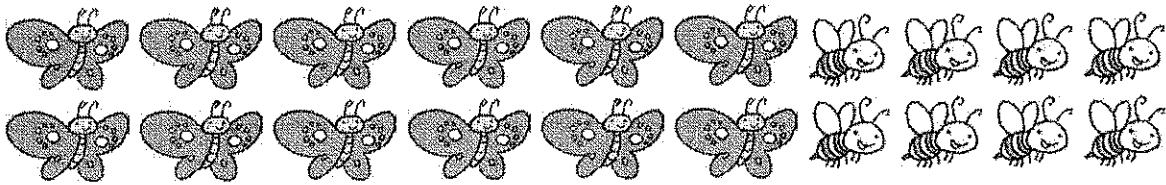
Use division to find each equivalent fraction.

$$5 \quad \frac{6}{16} = \frac{\square}{8}$$

$$6 \quad \frac{9}{21} = \frac{3}{\square}$$

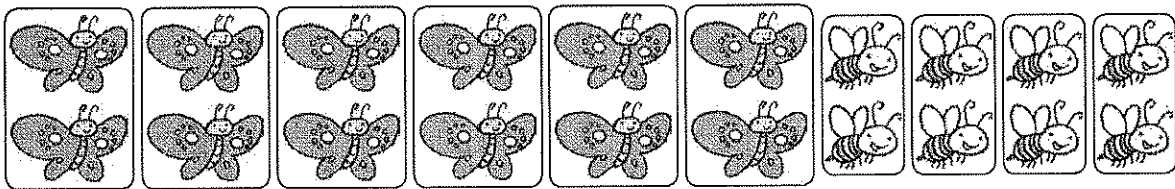
Fill in each blank.

Example



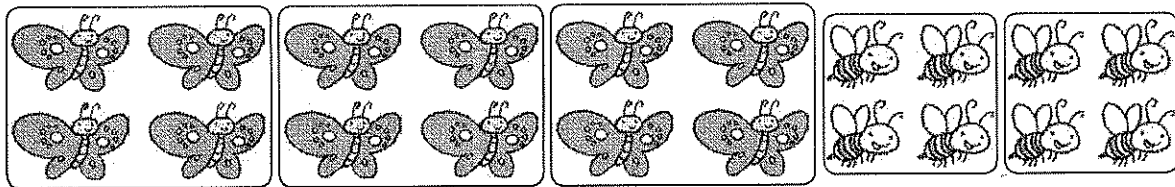
a The ratio of the number of butterflies to the number of bees is

12 : 8



b The ratio of the number of butterflies to the number of bees is

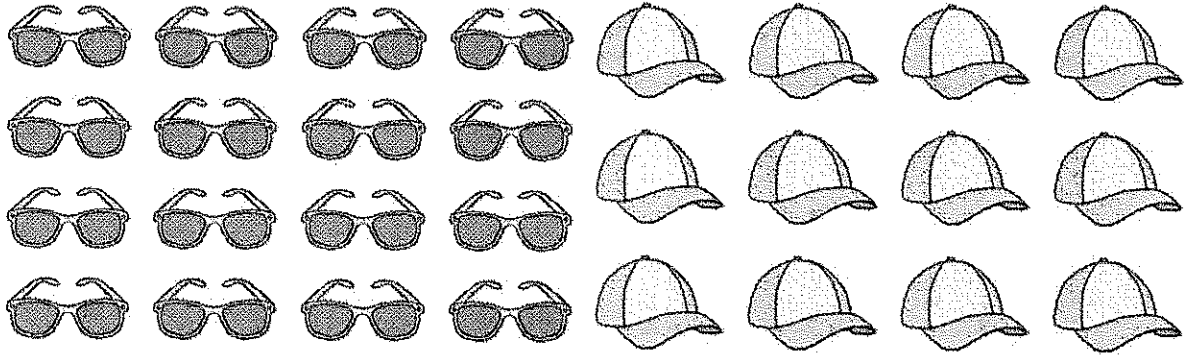
6 : 4



c The ratio of the number of butterflies to the number of bees is

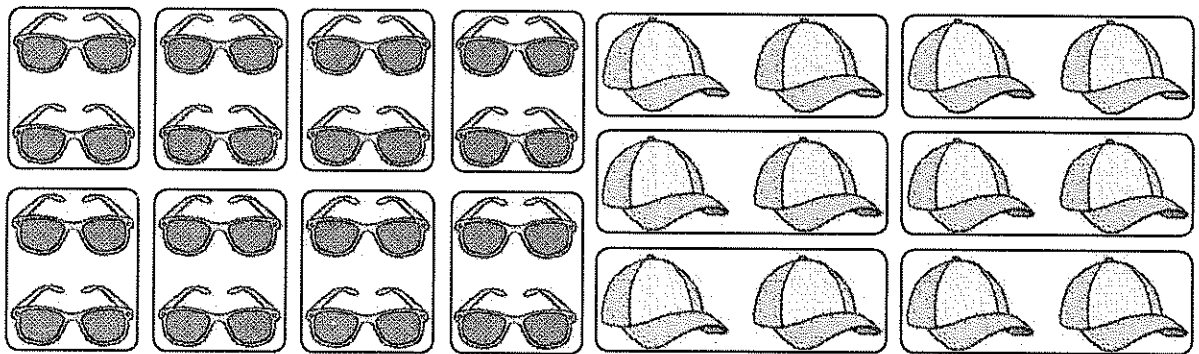
3 : 2

7



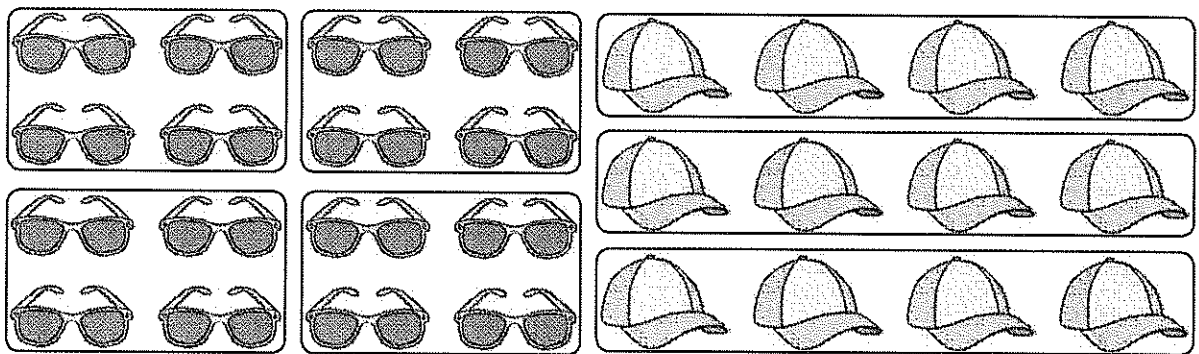
a The ratio of the number of sunglasses to the number of caps is

_____ : _____



b The ratio of the number of sunglasses to the number of caps is

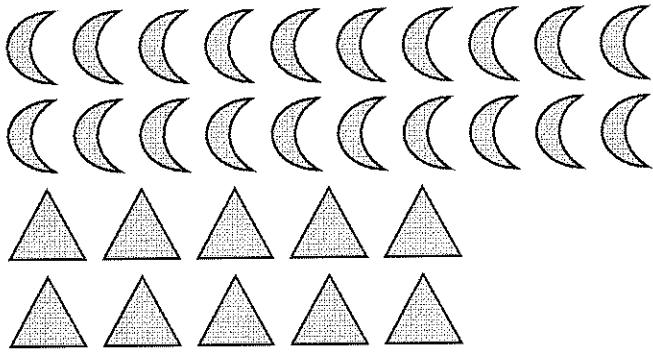
_____ : _____



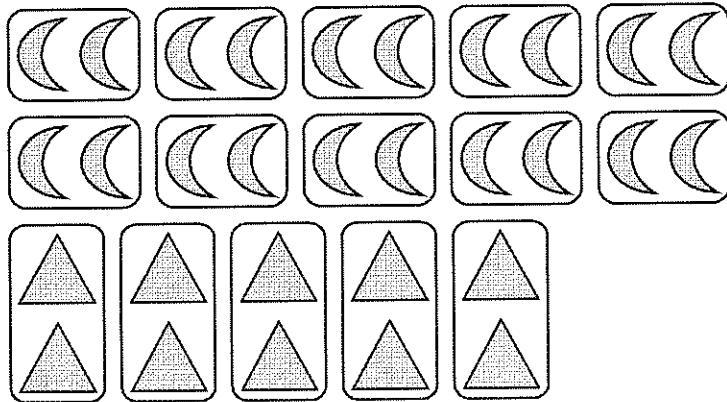
c The ratio of the number of sunglasses to the number of caps is

_____ : _____

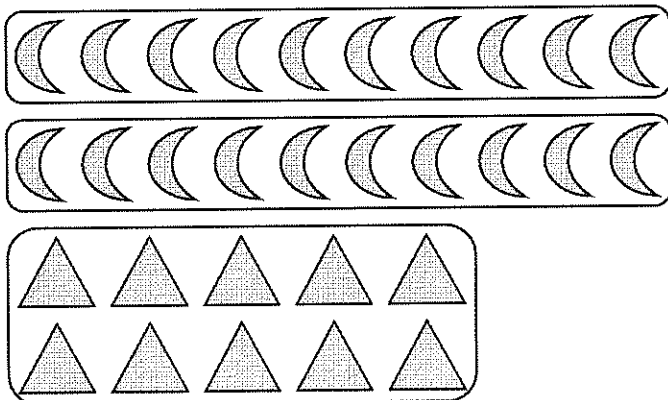
8



a The ratio of the number of crescents to the number of triangles is _____ : _____.



b The ratio of the number of crescents to the number of triangles is _____ : _____.

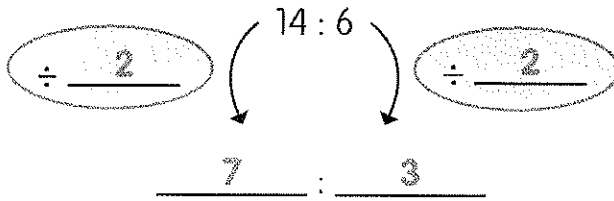


c The ratio of the number of crescents to the number of triangles is _____ : _____.

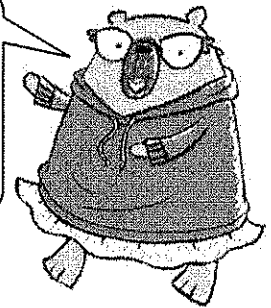
Fill in each blank to express each ratio in simplest form.

Example

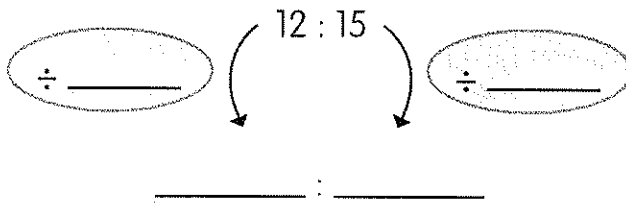
$$14 : 6 = \underline{7} : \underline{3}$$



We express ratios in their simplest forms by dividing each quantity by a common factor.



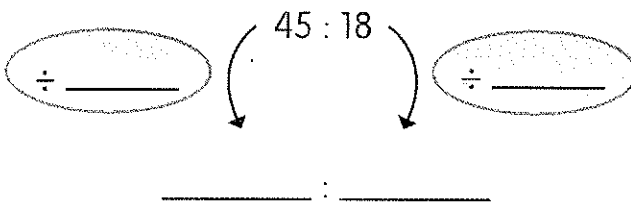
9 $12 : 15 = \underline{\hspace{2cm}} : \underline{\hspace{2cm}}$



The common factor of 12 and 15 is . Divide 12 and 15 by .



10 $45 : 18 = \underline{\hspace{2cm}} : \underline{\hspace{2cm}}$



11 $24 : 36 = \underline{\hspace{2cm}} : \underline{\hspace{2cm}}$

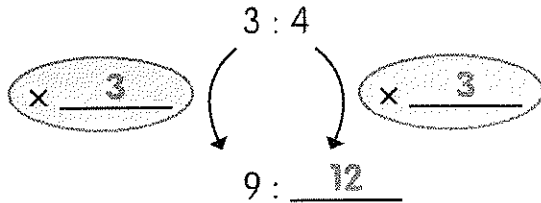
12 $55 : 25 = \underline{\hspace{2cm}} : \underline{\hspace{2cm}}$

Find the missing terms in each set of equivalent ratios.

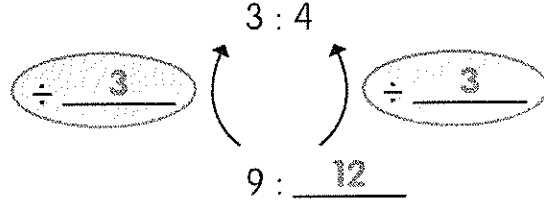
Example

$$3 : 4 = 9 : \underline{12}$$

Method 1

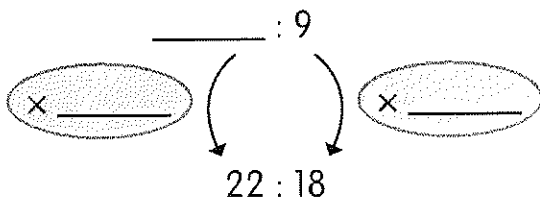


Method 2

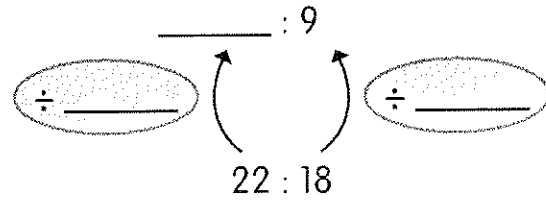


13 $\underline{\hspace{2cm}} : 9 = 22 : 18$

Method 1

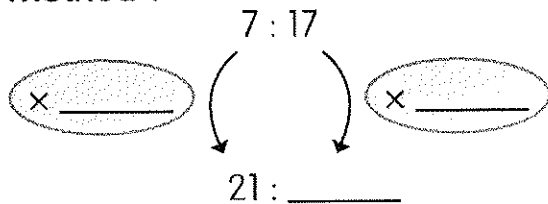


Method 2

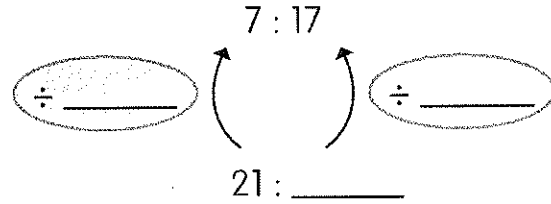


14 $7 : 17 = 21 : \underline{\hspace{2cm}}$

Method 1



Method 2



15 $6 : \underline{\hspace{2cm}} = 30 : 35$

16 $9 : 25 = \underline{\hspace{2cm}} : 75$

17 $\underline{\hspace{2cm}} : 3 = 56 : 42$

Fill in each blank.

Example

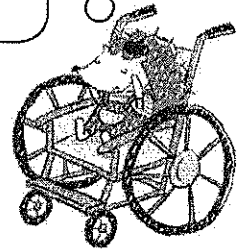
Katherine bought 4 bags of oranges, 7 bags of apples, and 5 bags of peaches. Each bag contains 5 pieces of fruit.

- a The total number of oranges is 20.
- b The total number of apples is 35.
- c The ratio of the number of oranges to the number of apples is 20 : 35.
- d The ratio of the number of oranges to the number of apples is 4 : 7.
- e The ratios in c and d are equivalent.
- f The ratio of the number of oranges to the number of peaches is 4 : 5 or 20 : 25.

Find the number of apples.



Find the equivalent ratio.



B Mr. Harris has 8 boxes of erasers, 3 boxes of pens, and 9 boxes of markers. Each box contains 12 items.

- a The total number of _____ is 96.
- b The total number of pens is _____.
- c The ratio of the number of _____ to the number of pens is 96 : _____.
- d The ratio of the number of erasers to the number of pens is _____ : 3.
- e The ratios in c and d are _____.
- f The ratio of the number of erasers to the number of markers is _____ : 9 or 96 : _____.

Activity 2 Equivalent Ratios

① $\frac{3}{4}$

② $\frac{2}{7}$

③ 9

④ 24

⑤ 3

⑥ 7

⑦ a 16 : 12

b 8 : 6

c 4 : 3

⑧ a 20 : 10

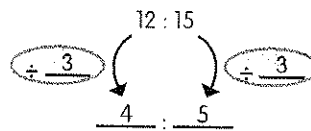
b 10 : 5

c 2 : 1

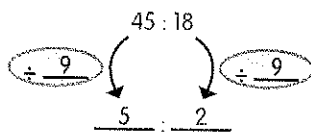
⑨ The common factor of 12 and 15 is 3.

Divide 12 and 15 by 3.

$$12 : 15 = \underline{4} : \underline{5}$$



⑩ $45 : 18 = \underline{5} : \underline{2}$

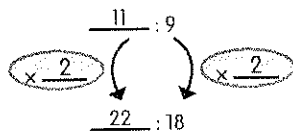


⑪ $24 : 36 = \underline{2} : \underline{3}$

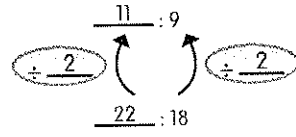
12 $55 : 25 = \underline{11} : \underline{5}$

13 $\underline{11} : 9 = 22 : 18$

Method 1

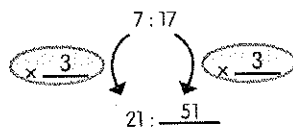


Method 2

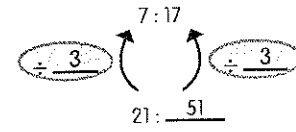


14 $7 : 17 = 21 : \underline{51}$

Method 1



Method 2



15 $6 : \underline{7} = 30 : 35$

16 $9 : 25 = \underline{27} : 75$

17 $\underline{4} : 3 = 56 : 42$

18 a erasers

b 36

c The ratio of the number of erasers to the number of pens is $96 : \underline{36}$

d $\underline{8} : 3$

e equivalent

f The ratio of the number of erasers to the number of markers is $\underline{8} : 9$ or $96 : \underline{108}$