

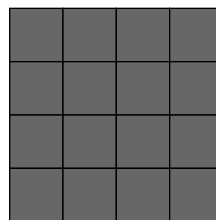
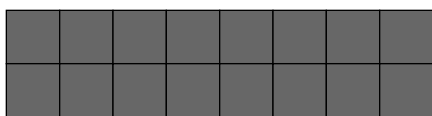
Exercise 3

Basics

- 1 Find the factors of 16.



$$16 = \square \times \square$$



$$16 = \square \times \square$$

$$16 = \square \times \square$$

The factors of 16 are _____, _____, _____, _____, and _____.

- 2 (a) Find the factors of 35.

$$35 = 1 \times \square$$

$$35 = 5 \times \square$$

$$35 = 7 \times \square$$

The factors of 35 are _____, _____, _____, and _____.

- (b) How can we tell without dividing that 2, 4, and 6 are not factors of 35?

3 (a) $8 \overline{)94}$

Is 8 a factor of 94?

(b) $8 \overline{)96}$

Is 8 a factor of 96?

Practice

4 Write “yes” or “no.”

Number	Is 2 a factor?	Is 3 a factor?	Is 5 a factor?
5			
15			
36			
60			
73			
84			
100			
114			
120			

5 (a) Circle the numbers that are factors of 18.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

(b) Circle the numbers that are factors of 48.

3	5	6	8	10	48	96
---	---	---	---	----	----	----

(c) Circle the numbers that have 6 as a factor.

1	3	6	26	30	72	100
---	---	---	----	----	----	-----

6 Find all the factors of each of the following numbers. List them in order from least to greatest.

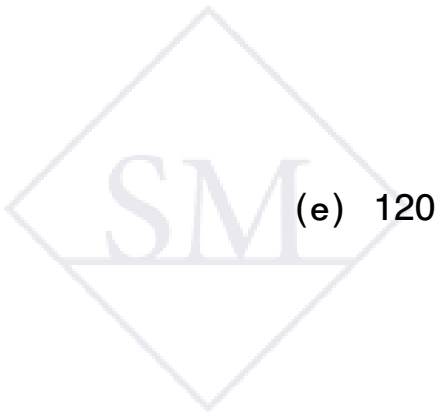
(a) 56

(b) 64

(c) 80

(d) 96

(e) 120



- 7 32 sandwiches are arranged on plates so each plate gets the same number of sandwiches. What are the possible numbers of plates needed?



- 8 54 flowers are to be arranged in an even number of vases so that each vase has the same number of flowers. There needs to be at least 5 vases and at most 20 vases. What are the possible numbers of vases needed?

Challenge

- 9 Circle the numbers that have an odd number of factors.

9	10	15	25	49	81	121
---	----	----	----	----	----	-----

- 10 What are the four numbers less than 50 that have exactly 3 factors?

Exercise 5

Basics

1 (a) $90 \times 10 =$

(b) $900 \times 10 =$

(c) $46 \times 10 =$

(d) $46 \times 100 =$

(e) $80 \times 10 =$

(f) $800 \times 100 =$

2 (a) $6 \times 3 =$

(b) $60 \times 30 =$

(c) $600 \times 3 =$

(d) $6 \times 300 =$

(e) $600 \times 30 =$

(f) $60 \times 300 =$

3 (a) $62 \times 30 = 62 \times 3 \times 10$
 $=$ $\times 10$
 $=$

(b) $620 \times 30 = 620 \times 3 \times 10$
 $=$ $\times 10$
 $=$

4 Write the missing digits.

$$\begin{array}{r} \square \\ 87 \\ \times \quad 6 \\ \hline \square \square \square \end{array}$$

$$\begin{array}{r} \square \\ 87 \\ \times \quad 60 \\ \hline \square \square \square 0 \\ \hline \end{array}$$

\uparrow
 $87 \times 6 \times 10$

$$\begin{array}{r} \square \\ 870 \\ \times \quad 60 \\ \hline \square \square \square 0 \\ \hline \end{array}$$

\uparrow
 $870 \times 6 \times 10$

Practice

5 Multiply.

$$\begin{array}{r} 70 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ \times 40 \\ \hline \end{array}$$

$$\begin{array}{r} 87 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 87 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 674 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 674 \\ \times 60 \\ \hline \end{array}$$

$$\begin{array}{r} 395 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 395 \\ \times 90 \\ \hline \end{array}$$

$$\begin{array}{r} 950 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 950 \\ \times 80 \\ \hline \end{array}$$

$$\begin{array}{r} 984 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 984 \\ \times 70 \\ \hline \end{array}$$

6 A snail has 33 teeth in 80 rows. How many teeth does the snail have?

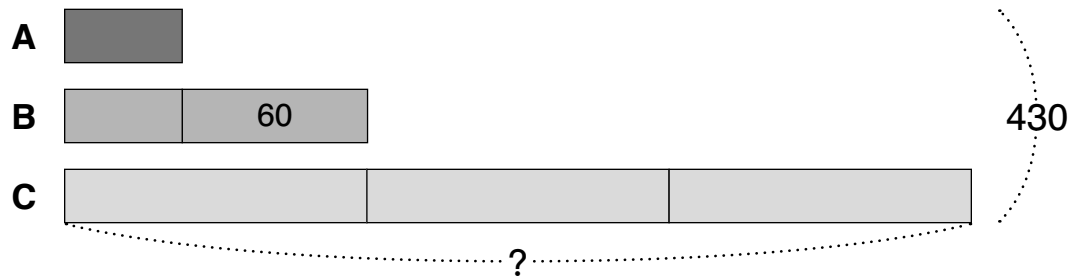
7 How many minutes are in 28 hours?

8 How many seconds are in 40 hours?

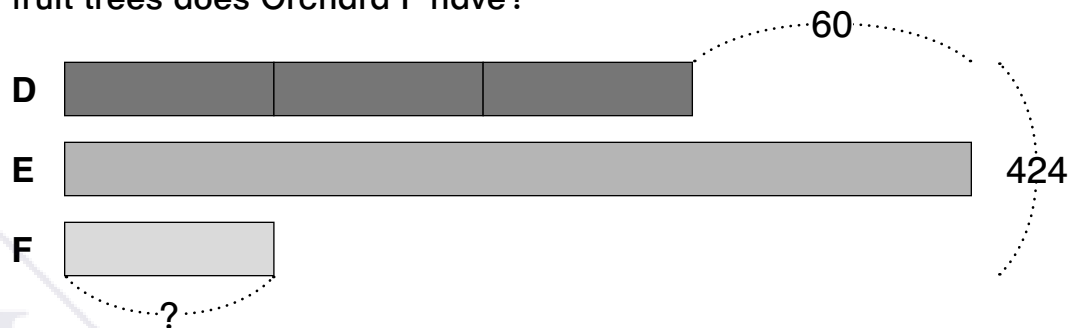
Exercise 5

Basics

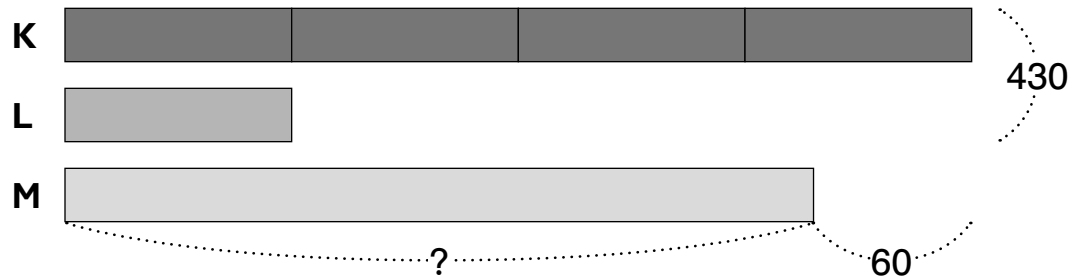
- 1 There are 3 neighboring orchards, A, B, and C. Orchard A has 60 fewer fruit trees than Orchard B. Orchard C has 3 times as many fruit trees as Orchard B. If the three orchards have 430 fruit trees altogether, how many fruit trees does Orchard C have?



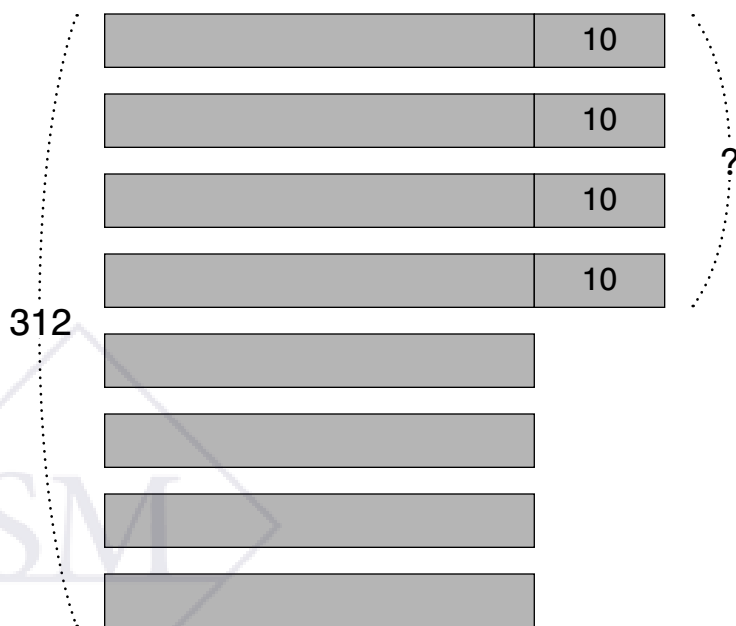
- 2 There are 3 neighboring orchards, D, E, and F. Orchard D has 60 fewer fruit trees than Orchard E. Orchard D has 3 times as many fruit trees as Orchard F. If the three orchards have 424 fruit trees altogether, how many fruit trees does Orchard F have?



- 3 There are 3 neighboring orchards, K, L, and M. Orchard K has 4 times as many fruit trees as Orchard L. Orchard M has 60 fewer fruit trees than Orchard K. If Orchards K and L together have 430 fruit trees, how many fruit trees does Orchard M have?



- 4 A paddle for adults costs \$10 more than a paddle for kids. The boating center bought 4 of each type of paddle. The total cost was \$312. What was the total cost for 4 adult-sized paddles?



Practice

- 5** Three siblings bought a small sailboat together. The sailboat cost \$3,150. Ada contributed \$20 more than Bron. Cora contributed \$130 less than twice as much money as Ada. How much money did Bron contribute?
- 6** A community boating center had \$12,500. It bought 3 surf skis and 1 keelboat and had \$265 left over. The keelboat cost \$6,455 more than a surf ski. How much did the keelboat cost?



- 7** An apartment complex manager is replacing some of the appliances. He bought 3 ovens and 4 refrigerators for \$4,583. Each oven cost \$570 less than a refrigerator. What is the cost of one oven?
- 8** A factory produced 3,460 jars of jam. It produced 3 times as many jars of strawberry jam as apricot jam, 60 more jars of plum jam than apricot jam, and 140 fewer jars of peach jam than apricot jam. How many jars of peach jam did it produce?

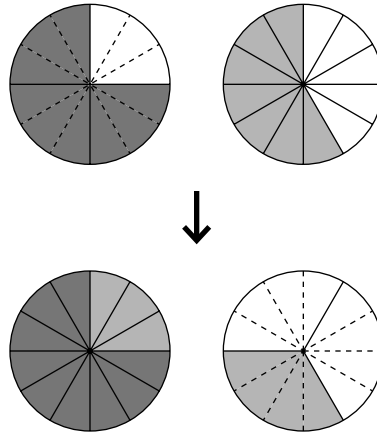


Exercise 2

Basics

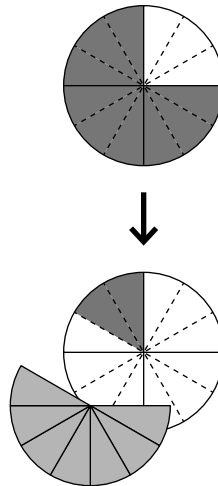
- 1 (a) Add $\frac{3}{4}$ and $\frac{7}{12}$.

$$\begin{aligned} \frac{3}{4} + \frac{7}{12} &= \frac{\boxed{}}{12} + \frac{7}{12} \\ &= \frac{\boxed{}}{12} \\ &= 1 \frac{\boxed{}}{12} \\ &= 1 \frac{\boxed{}}{3} \end{aligned}$$

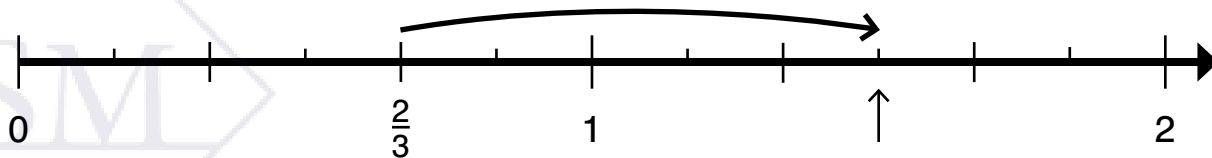


- (b) Subtract $\frac{7}{12}$ from $\frac{3}{4}$.

$$\begin{aligned} \frac{3}{4} - \frac{7}{12} &= \frac{\boxed{}}{12} - \frac{7}{12} \\ &= \frac{\boxed{}}{12} \\ &= \frac{\boxed{}}{6} \end{aligned}$$

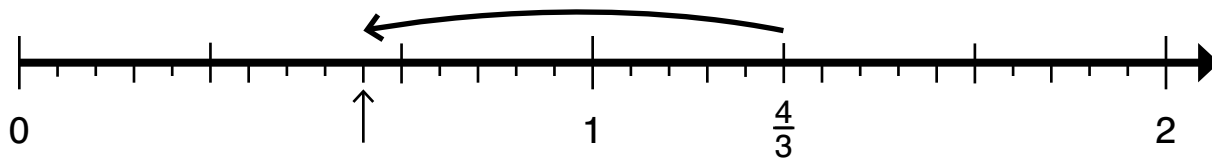


- 2 Add $\frac{2}{3}$ and $\frac{5}{6}$.



$$\frac{2}{3} + \frac{5}{6} = \frac{\boxed{}}{6} + \frac{5}{6} = \frac{\boxed{}}{6} = \frac{\boxed{}}{2} = 1 \frac{\boxed{}}{2}$$

- 3 Subtract $\frac{11}{15}$ from $\frac{4}{3}$. Express the answer in simplest form.



$$\frac{4}{3} - \frac{11}{15} = \frac{\boxed{}}{15} - \frac{11}{15} = \frac{\boxed{}}{15} = \frac{\boxed{}}{5}$$

Practice

Express answers 1 or greater as whole or mixed numbers. Use simplest form.

- 4 Add.

(a) $\frac{1}{2} + \frac{3}{14}$

(b) $\frac{5}{12} + \frac{3}{4}$

(c) $\frac{9}{8} + \frac{11}{24}$

(d) $\frac{2}{3} + \frac{7}{9}$

(e) $\frac{4}{5} + \frac{3}{10} + \frac{7}{10}$

(f) $\frac{4}{9} + \frac{17}{36} + \frac{11}{18}$

5 Subtract.

(a) $\frac{11}{14} - \frac{4}{7}$

(b) $\frac{5}{6} - \frac{5}{12}$

(c) $\frac{7}{5} - \frac{4}{15}$

(d) $\frac{8}{9} - \frac{2}{3}$

(e) $\frac{24}{25} - \frac{2}{5} - \frac{7}{50}$

(f) $\frac{11}{12} - \frac{2}{3} - \frac{1}{4}$

- 6** $\frac{3}{10}$ of a pole is painted red, $\frac{1}{5}$ of the pole is painted yellow, and the rest of the pole is painted blue. What fraction of the pole is painted blue?



Exercise 2

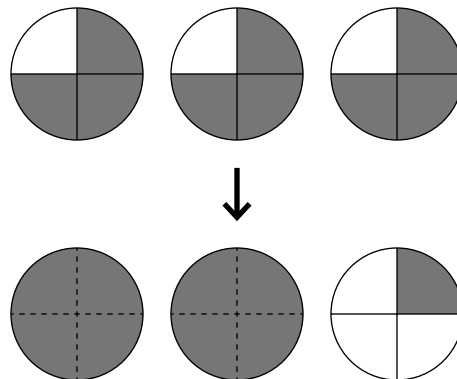
Basics

- 1 Find the value of 3 groups of $\frac{3}{4}$.

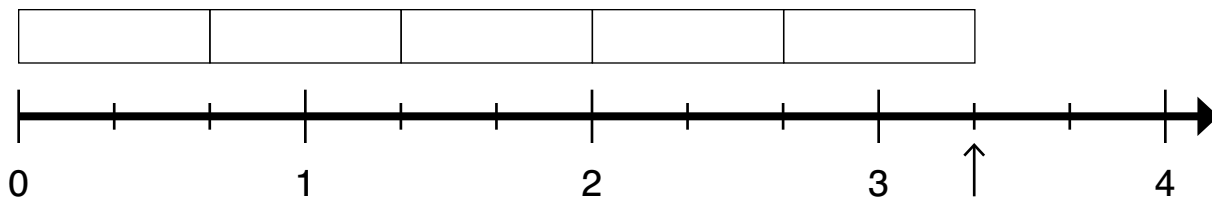
$$3 \times \frac{3}{4} = \frac{3 \times 3}{4}$$

$$= \frac{\boxed{}}{4}$$

$$= 2 \frac{\boxed{}}{4}$$



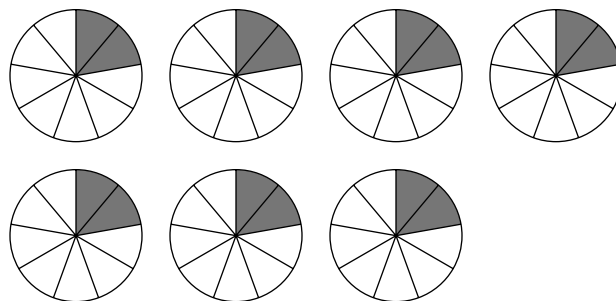
- 2 Find the product of 5 and $\frac{2}{3}$.



$$5 \times \frac{2}{3} = \frac{5 \times 2}{3} = \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

- 3 Find the product of 7 and $\frac{2}{9}$. Express the answer as a mixed number.

$$7 \times \frac{2}{9}$$



Practice

Express answers 1 or greater as whole or mixed numbers. Use simplest form.

4 Multiply.

(a) $2 \times \frac{3}{7}$

(b) $7 \times \frac{5}{12}$

(c) $3 \times \frac{3}{5}$

(d) $9 \times \frac{3}{10}$

(e) $5 \times \frac{5}{6}$

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

(g) $7 \times \frac{5}{11}$

(h) $8 \times \frac{7}{15}$

5 A park $1\frac{3}{5}$ miles from Carter's home has a trail around it that is $\frac{9}{10}$ mile long. Carter ran to the park, ran the trail 3 times, and then ran home. How far did he run in all?