

Order of Operations

Order of operations is a set of rules that mathematicians use when computing numbers. Here is how order of operations is used to solve the following problem: $7 + (5 \times 4) \times 3$.

Order of Operations

First, compute all numbers inside parentheses.

$$7 + (5 \times 4) \times 3$$

$$7 + 20 \times 3$$

Next, simplify exponents. If there are no exponents, go to the next step.

$$7 + 20 \times 3$$

Then, multiply and divide the numbers from left to right.

$$7 + 60$$

Finally, add and subtract the numbers from left to right.

$$67$$

How to use parentheses to make a number sentence true:

$$6 + 2 \times 9 = 72$$

Using order of operations,
 $6 + 2 \times 9 = 24$, not 72.

Place parentheses around $6 + 2$ so that this operation is done first:

$$(6 + 2) \times 9 = 72$$

$$8 \times 9 = 72$$

Evaluate each expression.

1. $8 + 7 \times 5 =$ _____

2. $18 - 3 \times 2 =$ _____

3. $3 \times 7 + 3 \times 5 =$ _____

4. $40 \div (2 \times 4) =$ _____

5. $6 \times 3 - 6 \times 2 =$ _____

6. $9 + 2^3 =$ _____

7. $7 + 12 \times 3 - 2 =$ _____

8. $4 \times (5 + 5) \div 20 + 6 =$ _____

9. $4^2 - (3 \times 5) =$ _____

10. $(3 \times 2) + 3^2 =$ _____

11. **Reasoning** Which operation should be performed *last* in this problem: $3^2 + 7 \times 4$? Why?

Use parentheses to make each sentence true.

12. $0 \times 6 + 9 = 9$ _____

13. $3^2 + 2 \times 2 = 13$ _____

8 Use with Lesson 1-8.

Adding and Subtracting Whole Numbers and Decimals

Find $2.3 + 0.09 + 41.6$.

Estimate: $2 + 0 + 42 = 44$

Write the numbers, lining up the decimal points. Annex zeros so all numbers have the same number of decimal places.

$$\begin{array}{r} 2.30 \\ 0.09 \\ + 41.60 \\ \hline 43.99 \end{array}$$

Add the numbers. Regroup if necessary. Write the decimal point in your answer.

Since 43.99 is close to 44, the answer is reasonable.

Find $18.5 - 7.82$.

Estimate: $19 - 8 = 11$

Write the numbers, lining up the decimal points. Annex zeros so all numbers have the same number of decimal places.

$$\begin{array}{r} 74 \\ 18.50 \\ - 7.82 \\ \hline 10.68 \end{array}$$

Subtract the numbers. Regroup if necessary. Write the decimal point in your answer.

Since 10.68 is close to 11, the answer is reasonable.

Find each sum or difference.

1. $45.6 + 26.3$

2. $84.84 - 22.7$

3. $77 + 3.09$

4. $14.25 - 5.17$

5. $23.64 - 8.73$

6. $29 - 0.45$

7. $17.08 + 14.04 + 2.30$

8. $5,712.11 + 921.79 + 5.35$

9. **Estimation** Estimate the sum of 3.7 and 9.8.

10. Find the total distance all three cars have traveled.

Mr. Cortez

13052.64

Ms. Brown

6520.10

Gerrie

920.70

Dividing by a Decimal

Find $4.728 \div 0.6$.

Estimate: $48 \div 6 = 8$

Count the number of decimal places in the divisor.

$$\begin{array}{r} .6 \overline{)4.728} \end{array}$$

one
decimal
place

Step 1 Move the decimal point to make the divisor a whole number.

$$\begin{array}{r} 6 \overline{)4.728} \end{array}$$

decimal point
moved to make
.6 become 6.

Step 2 Move the decimal point in the dividend the same number of spaces ($4.728 \times 10 = 47.28$). Then write the decimal point in the quotient at the same place.

$$\begin{array}{r} 6 \overline{)47.28} \end{array}$$

moved moved
one one
decimal decimal
place place

Step 3 Divide the same way you do with whole numbers.

$$\begin{array}{r} 7.88 \\ 6 \overline{)47.28} \\ -42 \downarrow \\ \hline 52 \\ -48 \downarrow \\ \hline 48 \\ -48 \\ \hline 0 \end{array}$$

Find each quotient.

1. $0.7 \overline{)1.75}$

2. $0.8 \overline{)3.624}$

3. $1.1 \overline{)0.6391}$

4. $2.2 \overline{)143}$

5. $0.09 \overline{)0.05697}$

6. $0.15 \overline{)1.146}$

7. **Writing in Math** Wendy divided 147 by 0.7. Jan divided 1,470 by 7. Should they both get the same answer? Explain.

Solving Equations with Decimals

R 2-12

You solve equations with decimals just as you solve equations with whole numbers. You use inverse, or opposite, operations to solve equations.

Solve $x + 1.3 = 2.64$.

Check: $x + 1.3 = 2.64$

$x + 1.3 - 1.3 = 2.64 - 1.3$

$1.34 + 1.3 = 2.64$

$x = 1.34$

$2.64 = 2.64$

The inverse of addition is subtraction.

Solve $3.6y = 9.72$.

Check: $3.6y = 9.72$

$\frac{3.6y}{3.6} = \frac{9.72}{3.6}$

$3.6(2.7) = 9.72$

$y = 2.7$

$9.72 = 9.72$

The inverse of multiplication is division.

Solve $\frac{a}{6} = 3.7$.

Check: $\frac{a}{6} = 3.7$

$\frac{a}{6}(6) = 3.7(6)$

$\frac{22.2}{6} = 3.7$

$a = 22.2$

$3.7 = 3.7$

The inverse of division is multiplication.

Solve each equation and check your answer.

1. $z + 2.5 = 5.7$ _____

2. $y + 9 = 12.3$ _____

3. $p - 4.2 = 8.2$ _____

4. $s - 7.3 = 4.5$ _____

5. $2k = 14.6$ _____

6. $\frac{m}{1.6} = 6$ _____

7. $6.9 = 2.3x$ _____

8. $\frac{n}{3.7} = 5$ _____

9. **Reasonableness** Is 3.5 a reasonable answer to $3y = 24.6$? Explain.

10. Mya and Eric work in a bakery. Mya has 3 times as much flour as Eric. Mya has 15.81 lb of flour. Use the equation $3f = 15.81$ to find how much flour Eric has.

Comparing and Ordering Fractions and Decimals

R 3-11

How to Compare Fractions

Compare $\frac{1}{4}$ and $\frac{3}{5}$.

Write the fractions with a common denominator.

$$\frac{1}{4} = \frac{1 \times 5}{4 \times 5} = \frac{5}{20}$$

$$\frac{3}{5} = \frac{3 \times 4}{5 \times 4} = \frac{12}{20}$$

The LCD is 20.

Compare the numerators.

$$\frac{12}{20} > \frac{5}{20}, \text{ so } \frac{3}{5} > \frac{1}{4}.$$

How to Order Fractions

Order $\frac{1}{8}$, $\frac{2}{5}$, and $\frac{3}{4}$ from greatest to least.

Write the fractions with a common denominator.

$$\frac{1}{8} = \frac{1 \times 5}{8 \times 5} = \frac{5}{40}$$

$$\frac{2}{5} = \frac{2 \times 8}{5 \times 8} = \frac{16}{40}$$

$$\frac{3}{4} = \frac{3 \times 10}{4 \times 10} = \frac{30}{40}$$

Compare the numerators.

$$\frac{30}{40} > \frac{16}{40} > \frac{5}{40}, \text{ so the}$$

order from greatest to

least is $\frac{3}{4}$, $\frac{2}{5}$, $\frac{1}{8}$.

How to Compare or Order Fractions and Decimals

Order $\frac{1}{4}$, $\frac{4}{5}$, and 0.35 from greatest to least.

First write the fractions as decimals.

$$\begin{array}{ccc} \frac{1}{4} & \frac{4}{5} & 0.35 \\ \downarrow & \downarrow & \downarrow \\ 0.25 & 0.80 & 0.35 \end{array}$$

Then compare the decimals.

$0.8 > 0.35 > 0.25$, so the order from greatest to least

is $\frac{4}{5}$, 0.35, $\frac{1}{4}$.

Use $<$, $>$, or $=$ to compare.

1. $\frac{5}{10} \bigcirc \frac{4}{5}$

2. $\frac{4}{8} \bigcirc \frac{1}{10}$

3. $\frac{14}{5} \bigcirc \frac{22}{10}$

4. $\frac{14}{21} \bigcirc \frac{30}{90}$

5. $0.7 \bigcirc \frac{2}{8}$

6. $1.3 \bigcirc 1\frac{2}{5}$

Order from least to greatest.

7. $0.7, \frac{25}{30}, \frac{6}{10}$

8. $2.6, 2.07, 2\frac{70}{100}$

9. **Writing in Math** Describe how you would use a number line to compare two fractions with different denominators.

Adding Mixed Numbers

To add mixed numbers, you can add the fractional parts to the whole number parts, and then simplify.

Find $2\frac{2}{4} + 3\frac{1}{4}$.

The fractions have a common denominator. Add the fractions. Then add the whole numbers.

$$\begin{array}{r} 2\frac{2}{4} \\ +3\frac{1}{4} \\ \hline 5\frac{3}{4} \end{array}$$

Find $3\frac{2}{3} + 4\frac{1}{9}$.

Write equivalent fractions with the LCD.

$$\begin{array}{r} 3\frac{2}{3} = 3\frac{6}{9} \\ +4\frac{1}{9} = 4\frac{1}{9} \\ \hline \end{array}$$

Add the whole numbers.
Add the fractions.
Simplify if possible.

$$\begin{array}{r} 3\frac{6}{9} \\ +4\frac{1}{9} \\ \hline 7\frac{7}{9} \end{array}$$

Find $4 + 3\frac{3}{5}$.

Add the whole numbers; then add the fraction.

$$\begin{array}{r} 4 \\ +3\frac{3}{5} \\ \hline 7\frac{3}{5} \end{array}$$

Find each sum. Simplify your answer.

1. $2\frac{1}{5} + 2\frac{3}{5} =$ _____ 2. $4\frac{2}{3} + 1\frac{1}{6} =$ _____

3. $5\frac{3}{5} + \frac{3}{10} =$ _____ 4. $8\frac{5}{8} + 1\frac{5}{12} =$ _____

5. $6\frac{1}{4} + 11\frac{3}{8} =$ _____ 6. $7 + 8\frac{1}{3} =$ _____

7. In 2001, the men's indoor pole vault record was $20\frac{1}{6}$ ft. The women's record for the indoor pole vault was $15\frac{5}{12}$ ft. What is the combined height of the two records? _____

8. **Writing in Math** How high is a stack of library books if one book is $1\frac{3}{8}$ in. high, the second book is $1\frac{5}{6}$ in. high, and the third is $2\frac{1}{3}$ in. high? Explain how you solved this problem.

Subtracting Mixed Numbers

R 4-6

To subtract mixed numbers, the fractional parts must have the same denominator.

	Step 1	Step 2	Step 3
Find $9\frac{1}{12} - 4\frac{5}{8}$.	Estimate. $9 - 4 = 5$ Write equivalent fractions for the LCD. $9\frac{1}{12} = 9\frac{2}{24}$ $-4\frac{5}{8} = -4\frac{15}{24}$	Before you can subtract, rename $9\frac{2}{24}$ to show more twenty-fourths. $9\frac{2}{24} = 8 + \frac{24}{24} + \frac{2}{24} = 8\frac{26}{24}$ $-4\frac{15}{24}$	Subtract and simplify if possible. $\begin{array}{r} 8\frac{26}{24} \\ -4\frac{15}{24} \\ \hline 4\frac{11}{24} \end{array}$
Find $10 - 4\frac{2}{5}$.	There is no fraction from which to subtract $\frac{2}{5}$.	Rename 10 to show fifths. $10 = 9 + \frac{5}{5} = 9\frac{5}{5}$	Subtract. Simplify if possible. $\begin{array}{r} 9\frac{5}{5} \\ -4\frac{2}{5} \\ \hline 5\frac{3}{5} \end{array}$

Find each difference. Simplify if possible.

1. $5\frac{9}{10} - 2\frac{3}{5} =$ _____ 2. $11\frac{7}{16} - 8\frac{3}{8} =$ _____ 3. $9\frac{2}{3} - 9\frac{1}{6} =$ _____

4. $4\frac{2}{3} - 2 =$ _____ 5. $4\frac{1}{4} - \frac{7}{12} =$ _____ 6. $5\frac{6}{7} - 2\frac{13}{14} =$ _____

7. **Number Sense** How do you know if you need to rename the first number in a subtraction problem involving mixed numbers?

Multiplying Mixed Numbers

How to find the product of two mixed numbers:

Find $3\frac{2}{3} \times 4\frac{1}{2}$.

Step 1	Step 2	Step 3
<p>Estimate by rounding.</p> $3\frac{2}{3} \times 4\frac{1}{2}$ $\begin{array}{cc} \downarrow & \downarrow \\ 4 & \times 5 = 20 \end{array}$ <p>Then write each mixed number as an improper fraction.</p> $\begin{array}{cc} 3\frac{2}{3} & \times & 4\frac{1}{2} \\ \downarrow & & \downarrow \\ \frac{11}{3} & \times & \frac{9}{2} \end{array}$	<p>Look for common factors and simplify.</p> $\frac{11}{\cancel{3}} \times \frac{\cancel{9}^3}{2} = \frac{11}{1} \times \frac{3}{2}$	<p>Multiply. Write the product as a mixed number.</p> $\frac{11}{1} \times \frac{3}{2} = \frac{33}{2} = 16\frac{1}{2}$ <p>$16\frac{1}{2}$ is close to 20, so the answer is reasonable.</p>

Find each product. Simplify if possible.

- | | |
|---|---|
| 1. $2\frac{3}{4} \times 3\frac{1}{2} =$ _____ | 2. $2\frac{1}{5} \times 2\frac{2}{3} =$ _____ |
| 3. $6 \times 3\frac{1}{4} =$ _____ | 4. $1\frac{2}{5} \times 3\frac{1}{4} =$ _____ |
| 5. $4\frac{1}{2} \times 16 =$ _____ | 6. $1\frac{3}{8} \times 2\frac{1}{2} =$ _____ |

7. Number Sense Is $2 \times 17\frac{5}{6}$ greater than or less than 36? Explain:

Dividing Mixed Numbers

R 5-7

You can follow these steps to find $5\frac{1}{3} \div 1\frac{1}{3}$ and $21 \div 2\frac{1}{3}$.

Step 1	Step 2	Step 3
<p>First estimate. Then write each number as an improper fraction.</p> <p>Find $5\frac{1}{3} \div 1\frac{1}{3}$.</p> <p>Estimate $5 \div 1 = 5$.</p> $5\frac{1}{3} \div 1\frac{1}{3} =$ $\begin{array}{r} \downarrow \quad \downarrow \\ \frac{16}{3} \div \frac{4}{3} \end{array}$	<p>Find the reciprocal of the divisor. Rewrite as a multiplication problem.</p> $\frac{16}{3} \div \frac{4}{3} =$ $\frac{16}{3} \times \frac{3}{4} =$	<p>Look for common factors. Simplify, then multiply.</p> $\frac{16}{3} \times \frac{3}{4} =$ $\frac{4}{1} \times \frac{1}{1} = \frac{4}{1} = 4$ <p>4 is close to 5, so the answer is reasonable.</p>
<p>Find $21 \div 2\frac{1}{3}$.</p> <p>Estimate $21 \div 2 = 10\frac{1}{2}$.</p> $21 \div 2\frac{1}{3}$ $\begin{array}{r} \downarrow \quad \downarrow \\ \frac{21}{1} \div \frac{7}{3} \end{array}$	<p>Find the reciprocal of the divisor. Rewrite as a multiplication problem.</p> $\frac{21}{1} \div \frac{7}{3} =$ $\frac{21}{1} \times \frac{3}{7} =$	<p>Look for common factors. Simplify, then multiply.</p> $\frac{21}{1} \times \frac{3}{7} =$ $\frac{3}{1} \times \frac{3}{1} = \frac{9}{1} = 9$ <p>9 is close to $10\frac{1}{2}$, so the answer is reasonable.</p>

Find each quotient. Simplify if possible.

1. $2\frac{2}{3} \div 3\frac{1}{4} =$ _____

2. $1\frac{3}{4} \div 4\frac{1}{8} =$ _____

3. $2\frac{1}{5} \div 2\frac{1}{3} =$ _____

4. $5\frac{1}{4} \div 3 =$ _____

5. $10 \div 3\frac{1}{4} =$ _____

6. $7\frac{1}{4} \div 2\frac{1}{8} =$ _____

7. **Writing in Math** Paper needs to be cut for voting ballots. Each piece of paper is $10\frac{1}{2}$ in. long. Each ballot should be $1\frac{3}{4}$ in. long. How many ballots can be cut from one piece of paper?
- _____

Rates and Unit Rates

A rate is a ratio in which the two terms use different units of measurement.

For example:

2 sandwiches for 5 dollars 150 mi in 3 hr

A unit rate is a rate in which the second term is 1.

For example: 50 mi in 1 hr

This is a unit rate because the units are different for the first and second term, and the second term is 1.

How to write rates as unit rates	How to use unit rates to make comparisons		
<p>Give the unit rate for 20 yards in 4 minutes.</p> <p>Example A: Find an equal ratio.</p> $\frac{20 \text{ yds}}{4 \text{ min}} = \frac{? \text{ yds}}{1 \text{ min}}$ $\frac{20 \div 4}{4 \div 4} = \frac{5}{1}$ <p>Unit Rate: $\frac{5 \text{ yds}}{1 \text{ min}}$</p> <p>The unit rate is 5 yards per minute.</p>	<p>Example B: Find the quotient of the terms.</p> $\text{Rate} = \frac{20 \text{ yds}}{4 \text{ min}}$ $20 \div 4 = 5$ <p>Unit Rate: $\frac{5 \text{ yds}}{1 \text{ min}}$</p>		
<p>Dan painted 9 planks in 6 minutes. Bill painted 22 planks in 11 minutes. Which boy painted at a faster rate?</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> <p>Dan's Rate</p> $\frac{9 \text{ planks}}{6 \text{ min}}$ <p>Unit Rate: $\frac{1.5 \text{ planks}}{1 \text{ min}}$</p> </td> <td style="width: 50%; padding: 5px;"> <p>Bill's Rate</p> $\frac{22 \text{ planks}}{11 \text{ min}}$ <p>Unit Rate: $\frac{2 \text{ planks}}{1 \text{ min}}$</p> </td> </tr> </table> <p>Bill painted at a faster rate.</p>		<p>Dan's Rate</p> $\frac{9 \text{ planks}}{6 \text{ min}}$ <p>Unit Rate: $\frac{1.5 \text{ planks}}{1 \text{ min}}$</p>	<p>Bill's Rate</p> $\frac{22 \text{ planks}}{11 \text{ min}}$ <p>Unit Rate: $\frac{2 \text{ planks}}{1 \text{ min}}$</p>
<p>Dan's Rate</p> $\frac{9 \text{ planks}}{6 \text{ min}}$ <p>Unit Rate: $\frac{1.5 \text{ planks}}{1 \text{ min}}$</p>	<p>Bill's Rate</p> $\frac{22 \text{ planks}}{11 \text{ min}}$ <p>Unit Rate: $\frac{2 \text{ planks}}{1 \text{ min}}$</p>		

Write each as a unit rate.

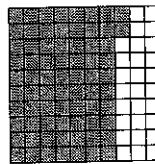
1. 25 goals in 5 games
2. 48 mi in 8 days
3. 30 books in 15 days
4. 120 oz in 20 min

Which is the faster rate?

5. 3 mi in 12 hr or 8 mi in 18 hr?
6. 32 ft in 45 min or 50 ft in 60 min?
7. **Number Sense** If a car goes 350 mi in 5 hr, what is its rate per hour?

Fractions, Decimals, and Percents

Fractions, decimals, and percents all name parts of a whole. The grid to the right has 72 out of 100 squares shaded.



72 out of 100 are shaded. As a fraction, that is $\frac{72}{100}$.
As a decimal, that is 0.72. As a percent, that is 72%.

Write 40% as a fraction and decimal.

$$40\% = \frac{40}{100} = 0.40$$

The decimal point moves two places to the left.

Write 0.47 as a fraction and percent.

$$0.47 = \frac{47}{100} = 47\%$$

Write 0.3% as a fraction and decimal.

$$0.3\% = \frac{0.3}{100} = 0.003$$

The decimal point moves two places to the left. Fill in any spaces with zeros.

Write $\frac{3}{4}$ as a decimal and percent.

You can use a proportion:

$$\frac{3}{4} = \frac{n}{100}$$

$$\frac{4n}{4} = \frac{300}{4}$$

$$n = 75$$

$$\text{So, } \frac{3}{4} = 0.75 = 75\%.$$

Write each in two other ways.

1. $\frac{2}{10}$ _____; _____

2. $\frac{23}{100}$ _____; _____

3. $\frac{7}{10}$ _____; _____

4. 97% _____; _____

5. 16% _____; _____

6. 52% _____; _____

7. 0.04 _____; _____

8. 0.35 _____; _____

9. **Number Sense** Sheila got 87% of the problem correct.
Patrick got $\frac{91}{100}$ correct. Who scored higher? _____

Sales Tax and Discount

R 7-8

Book Sale A bookstore sells hardcover best-selling books at a 30% discount. The book Billie wants to buy is regularly priced at \$24.00. What is the sale price of the book?

One Way

Find the discount amount and subtract it from the original price.

The discount is 30% of \$24.00.

$$\text{Estimate: } \frac{1}{3} \times \$24 = \$8.00$$

$$30\% \text{ of } 24 = 0.30 \times 24 = \$7.20$$

sale price = regular price - discount

$$\$24.00 - \$7.20 = \$16.80$$

So the sale price of the book Billie wants to buy is \$16.80.

Since \$7.20 is close to \$8.00, the answer is reasonable.

Another Way

The discount is 30%. So the sale price is 100% - 30%, or 70% of the regular price.

$$\text{Estimate: } \frac{3}{4} \times \$24.00 = \$18.00$$

Find 70% of \$24.00.

$$0.70 \times \$24.00 = \$16.80$$

Since \$16.80 is close to \$18.00, the answer is reasonable.

Billie will also have to pay 5% sales tax.

How do you calculate sales tax?

Find the sales tax and add it to the price of the book.

The sales tax is 5% of \$16.80.

$$\text{Estimate: } 5\% \text{ of } 15 = \$0.75$$

$$5\% \text{ of } \$16.80 = 0.05 \times \$16.80 = \$0.84$$

Then add the tax amount to the price of the book (or the subtotal).

$$\$16.80 + \$0.84 = \$17.64$$

Billie will pay a total of \$17.64.

Find the sale price or total cost.

1. Regular price: \$100.00

Discount: 10%

Sale price: _____

2. Regular price: \$200.00

Discount: 15%

Sale price: _____

3. Regular price: \$65.00

Discount: 25%

Sale price: _____

4. Subtotal: \$60.00

Tax: 5%

Total cost: _____

5. Subtotal: \$24.95

Tax: 6%

Total cost: _____

6. Subtotal: \$242.00

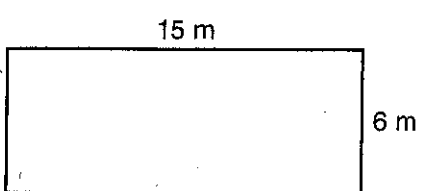
Tax: 8%

Total cost: _____

Perimeter

R 10-7

Find the perimeter of the figure below.

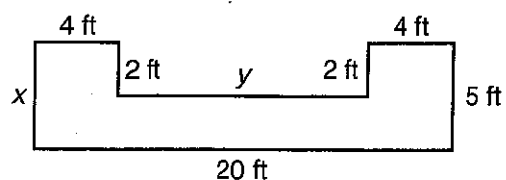


By using a formula:

There are two equal lengths and equal widths, so you can use the formula

$$\begin{aligned}
 P &= 2l + 2w. \\
 P &= 2(6) + 2(15) \\
 &= 12 + 30 \\
 &= 42
 \end{aligned}$$

The perimeter is 42 m.



Sometimes you are not given the lengths of all the sides of a polygon.

Side x is the same size as the side parallel to it. So, side $x = 5$ ft.

You can figure out the length of side y by looking at the side parallel to it. That side is 20 ft.

$$\begin{aligned}
 4 \text{ ft} + 4 \text{ ft} + y \text{ ft} &= 20 \text{ ft} \\
 8 \text{ ft} + y \text{ ft} &= 20 \text{ ft} \\
 8 \text{ ft} + 12 \text{ ft} &= 20 \text{ ft}
 \end{aligned}$$

So, $y = 12$ ft.

Now you can add up all the sides to find the perimeter.

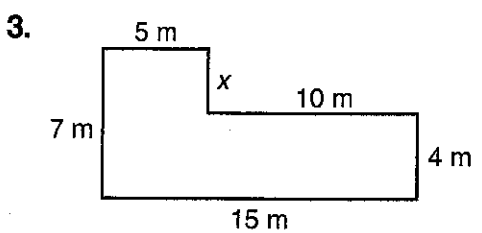
$$\begin{aligned}
 4 + 2 + 12 + 2 + 4 + 5 + 20 + 5 &= 54 \\
 P &= 54 \text{ ft}
 \end{aligned}$$

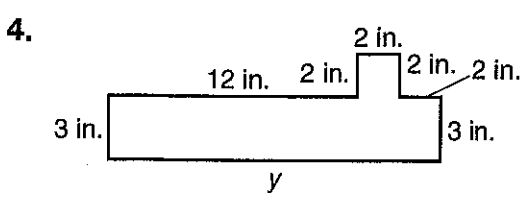
Find the perimeter of each figure.

1. rectangle, length 5.1 ft, width 7.4 ft

2. regular octagon, sides 4.6 cm long

Find the length of each unknown side. Then find the perimeter.





Area of Squares and Rectangles

You can use formulas to find the area of a square or rectangle.

Find the area of a square that is 7.2 m on each side.

Use the formula $A = s^2$.

$$A = (7.2)^2$$

$$A = 51.84$$

The area is 51.84 m².

Find the area of a rectangle with a length (l) of 4 cm and a width (w) of 12 cm.

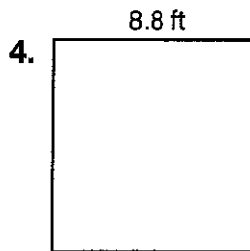
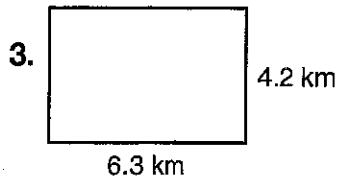
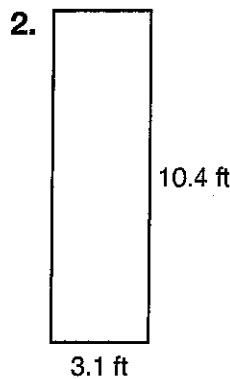
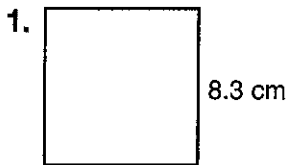
Use the formula $A = l \times w$.

$$A = 4 \times 12$$

$$A = 48$$

The area is 48 cm².

Find the area of each figure.



5. **Reasoning** What is the length of a rectangle that has an area of 120 ft² and a width of 8 ft?

6. **Number Sense** What is the area of a square that is 12.4 cm on each side?
