

## Summer Math Packet

Welcome to your Summer Math Packet. Over the summer months, students tend to lose at least one month's worth of information due to "not using their brains" (at least not the same way they do during school time). Who wants to have to relearn everything? What a waste of time!! One way to reduce that loss is by keeping your brain active – hence, this packet.

This packet has been designed to review skills you have already learned and will need to succeed in math next year. Each grade has their own packet, this one was designed for you, the student going into Algebra Readiness (grade 8).

For the most part, there are 10-12 pages in each packet – one for each week of summer. If you want to take a break the first week of summer, do so, just make sure you do an extra page another week. The same thing goes for any weeks of vacation you may take. Most, if not all of the pages, have information about how to do the math on the page, so that you and your parents can figure it out if you are having trouble. If you still can't figure it out, try [www.khanacademy.org](http://www.khanacademy.org). It should not take more than 30 minutes to do any of these pages each week.

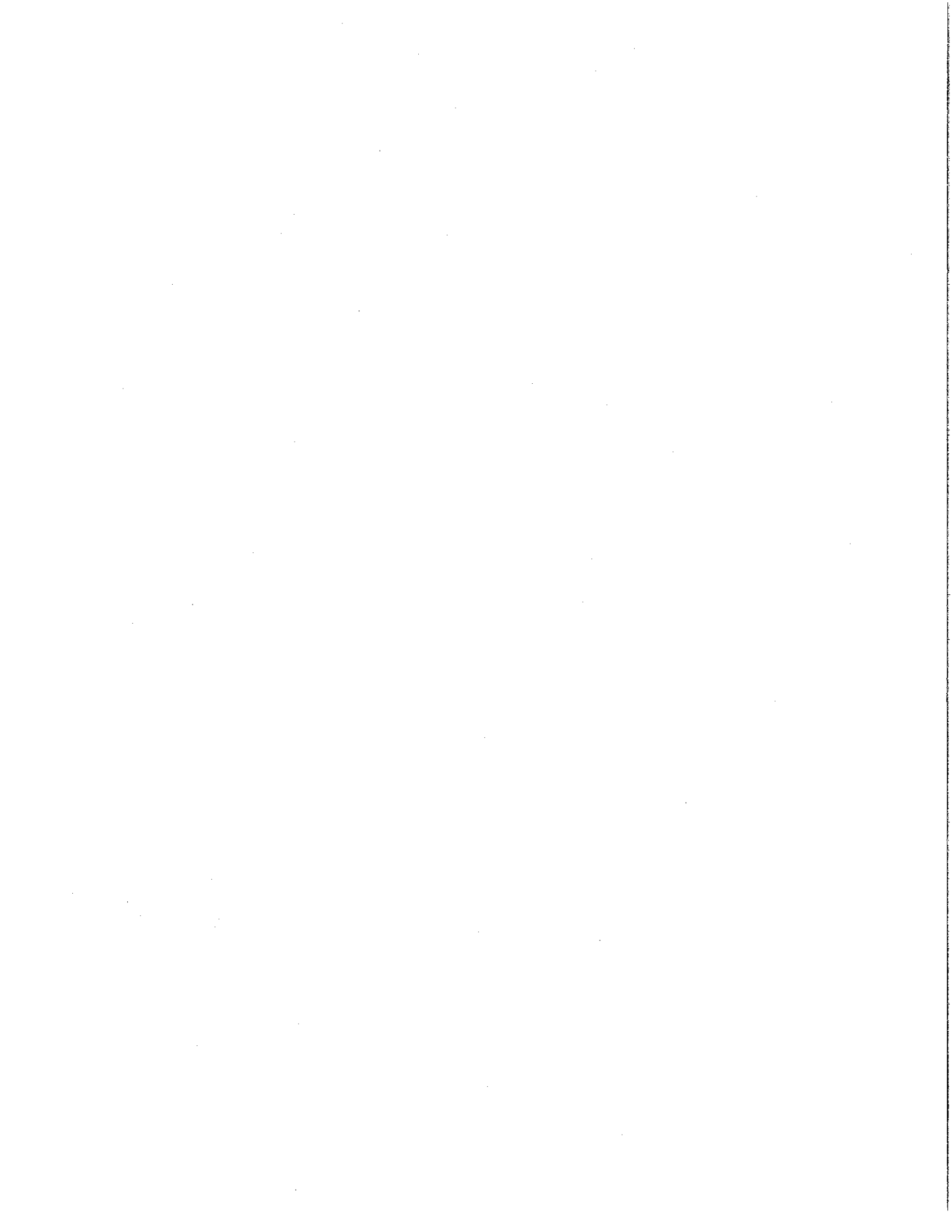
This IS REQUIRED – it will go into the grade book as a grade based on what you have complete. All those who complete it will also receive a treat in September, in recognition of your hard work. Please do not lose this, but if you do, it can be found on the school website.

Please be ready to turn this in to Mrs. Lumsden by the second day of school.

Enjoy your summer!

Keep thinkin'!

Mrs. Jackson (Mrs. J)



# Review 104

## Adding and Subtracting Decimals

Add  $3.19 + 6.098 + 2.67$ .

① Round to estimate.

$$\begin{array}{r} 3.19 \rightarrow 3 \\ 6.098 \rightarrow 6 \\ + 26.7 \rightarrow + 27 \\ \hline 36 \end{array}$$

② Line up the decimal points.

$$\begin{array}{r} 3.19 \\ 6.098 \\ + 26.700 \\ \hline \end{array}$$

③ Add zeros. Then add.

$$\begin{array}{r} 3.190 \\ 6.098 \\ + 26.700 \\ \hline 35.988 \end{array}$$

Compare to make sure your answer is reasonable: 35.988 is close to 36.

Subtract  $8.7 - 4.97$ .

① Round to estimate.

$$\begin{array}{r} 8.7 \rightarrow 9 \\ - 4.97 \rightarrow - 5 \\ \hline 4 \end{array}$$

② Line up the decimal points.

$$\begin{array}{r} 8.7 \\ - 4.97 \\ \hline \end{array}$$

③ Add zeros. Then subtract.

$$\begin{array}{r} 8.70 \\ - 4.97 \\ \hline 3.73 \end{array}$$

Compare to make sure your answer is reasonable: 3.73 is close to 4.

Grade 7 Topics

**Estimate first. Then find each sum or difference.**

1.  $\begin{array}{r} 46.2 \\ - 34.09 \\ \hline \end{array}$

2.  $\begin{array}{r} 3.31 \\ + 9.075 \\ \hline \end{array}$

3.  $\begin{array}{r} 9.06 \\ - 7.2 \\ \hline \end{array}$

4.  $\begin{array}{r} 84.32 \\ + 6.94 \\ \hline \end{array}$

5.  $\begin{array}{r} 8.037 \\ + 1.9 \\ \hline \end{array}$

6.  $\begin{array}{r} 10.6 \\ - 4.59 \\ \hline \end{array}$

**Find each sum or difference.**

7.  $4.102 + 7.7$   
\_\_\_\_\_

8.  $5.4 - 1.6$   
\_\_\_\_\_

9.  $7.09 + 4.3 + 20.1$   
\_\_\_\_\_

10.  $0.392 - 0.26$   
\_\_\_\_\_

11.  $15.64 - 8.5$   
\_\_\_\_\_

12.  $8.709 + 3.2$   
\_\_\_\_\_

13.  $6 + 0.497$   
\_\_\_\_\_

14.  $95.1 + 6$   
\_\_\_\_\_

15.  $0.004 - 0.0005$   
\_\_\_\_\_

16.  $0.2408 - 0.051$   
\_\_\_\_\_

17.  $0.36 + 4.7 + 6$   
\_\_\_\_\_

18.  $5.306 - 0.78$   
\_\_\_\_\_

# Review 105

## Multiplying and Dividing Decimals

Multiply  $5.43 \times 1.8$ .

- ① Multiply as if the numbers were whole numbers.

$$\begin{array}{r} 5.43 \\ \times 1.8 \\ \hline 4344 \end{array}$$

} 3 decimal places

- ② Count the total number of decimal places in the factors.

$$\begin{array}{r} + 543 \\ \hline 9.774 \end{array}$$

← 3 decimal places

- ③ Place the decimal point in the product.

Multiply  $38.25 \div 1.5$ .

- ① Rewrite the problem with a whole number divisor.

$$1.5 \overline{)38.25}$$

↓

- ② Place the decimal point in the quotient.

$$1.5 \overline{)38.25}$$

↑   ↑

Move 1 place each.

- ③ Divide. Then check.

$$\begin{array}{r} 25.5 \\ 15 \overline{)382.5} \\ \underline{-30} \phantom{0} \\ 82 \phantom{0} \\ \underline{-75} \phantom{0} \\ 75 \phantom{0} \\ \underline{-75} \phantom{0} \\ 0 \end{array}$$

$25.5 \times 15 = 382.5 \checkmark$

Multiply to check.

Find each product.

1.  $\begin{array}{r} 1.42 \\ \times 7.2 \\ \hline \end{array}$

2.  $\begin{array}{r} 2.2 \\ \times 4.1 \\ \hline \end{array}$

3.  $\begin{array}{r} 5.11 \\ \times 0.3 \\ \hline \end{array}$

4.  $\begin{array}{r} 3.68 \\ \times 5.8 \\ \hline \end{array}$

5.  $2.8 \times 0.05$

\_\_\_\_\_

6.  $1.45 \cdot 0.7$

\_\_\_\_\_

7.  $(2.07)(4.9)$

\_\_\_\_\_

8.  $9.3(0.56)$

\_\_\_\_\_

9.  $0.006(3.75)$

\_\_\_\_\_

10.  $3.8 \times 912$

\_\_\_\_\_

Rewrite each problem so the divisor is a whole number.

11.  $5.1 \overline{)351.9}$  \_\_\_\_\_

12.  $1.8 \overline{)14.9}$  \_\_\_\_\_

13.  $0.32 \overline{)39.68}$  \_\_\_\_\_

14.  $0.06 \overline{)0.948}$  \_\_\_\_\_

15.  $0.8 \overline{)2.112}$  \_\_\_\_\_

16.  $0.49 \overline{)9.457}$  \_\_\_\_\_

Find each quotient.

17.  $2 \overline{)15.8}$

18.  $0.4 \overline{)2.2}$

19.  $0.09 \overline{)0.99}$

20.  $2.7 \overline{)12.15}$

21.  $0.14 \overline{)28.14}$

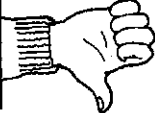
22.  $0.08 \overline{)0.64}$

Name \_\_\_\_\_

# Subtracting Integers


$$\cancel{12 - 20 =}$$

$$\cancel{-12 + -20 = -32}$$

**Wrong!** 

$$12 - 20 =$$

$$12 + -20 = -8$$

**Right!** 

**Remember**

To subtract integers, add the opposite of the integer being subtracted.

$8 - 5 = 8 + -5 = 3$     $8 - -5 = 8 + +5 = 13$     $-8 - 5 = -8 + -5 = -13$     $-8 - -5 = -8 + +5 = -3$

Subtract. Shade your answers to reveal the answer to the question below.

- |                        |                        |
|------------------------|------------------------|
| 1. $-16 - 5 =$ _____   | 11. $15 - -1 =$ _____  |
| 2. $4 - 8 =$ _____     | 12. $7 - 3 =$ _____    |
| 3. $5 - -2 =$ _____    | 13. $-10 - 16 =$ _____ |
| 4. $9 - 6 =$ _____     | 14. $-2 - -8 =$ _____  |
| 5. $-6 - 17 =$ _____   | 15. $0 - -11 =$ _____  |
| 6. $-11 - -12 =$ _____ | 16. $-20 - -7 =$ _____ |
| 7. $-2 - 3 =$ _____    | 17. $-13 - 9 =$ _____  |
| 8. $4 - -5 =$ _____    | 18. $-3 - -31 =$ _____ |
| 9. $8 - 10 =$ _____    | 19. $18 - 24 =$ _____  |
| 10. $-12 - 7 =$ _____  | 20. $4 - -4 =$ _____   |

Which integer is neither positive nor negative?

-4	8	2	-23	-8	4	0	-22	10	-21	7	27
18	16	33	11	1	28	15	-11	12	42		
-10	6	-5	-9					3	31		
5	-6	-34	-3	14				100			
9	-13	-19	-1	-2				25	-26		-18

# Review 135

## Adding and Subtracting Mixed Numbers

Follow these steps to add or subtract mixed numbers with different denominators.

- |   |      |   |           |  |
|---|------|---|-----------|--|
|   | Add: | $2\frac{2}{5} + 1\frac{3}{4}$                     | Subtract: | $4\frac{1}{3} - 2\frac{5}{6}$                    |
| ① Write the equivalent fractions with the LCD.                      |      | $2\frac{8}{20} + 1\frac{15}{20}$                  |           | $4\frac{2}{6} - 2\frac{5}{6}$                    |
| ② Rename, if necessary.   |      |   |           | $4\frac{2}{6} = 3 + 1\frac{2}{6} = 3\frac{8}{6}$ |
| ③ Add or subtract the whole numbers. Add or subtract the fractions. |      | $2\frac{8}{20} + 1\frac{15}{20} = 3\frac{23}{20}$ |           | $3\frac{8}{6} - 2\frac{5}{6} = 1\frac{3}{6}$     |
| ④ Simplify.   |      | $3\frac{23}{20} = 4\frac{3}{20}$                  |           | $1\frac{3}{6} = 1\frac{1}{2}$                    |

Complete to find each sum or difference.

1.  $4\frac{3}{4} - 2\frac{3}{8}$   
 $4\frac{\square}{8} - 2\frac{\square}{8} = \square\frac{\square}{\square}$

2.  $4\frac{7}{12} + 2\frac{5}{6}$   
 $4\frac{\square}{12} + 2\frac{\square}{12} = \square\frac{\square}{\square}$   
 $= \square\frac{\square}{\square}$

3.  $4\frac{1}{3} - 1\frac{3}{5}$   
 $4\frac{\square}{15} - 1\frac{\square}{15}$   
 $= \square\frac{\square}{\square} - \square\frac{\square}{\square}$   
 $= \square\frac{\square}{\square}$

Find each sum or difference. Write it in simplest form.

- |   |   |  |
|---|---|--|
| 4. $2\frac{3}{5} + 1\frac{1}{10}$ _____   | 5. $2\frac{5}{6} + 3\frac{4}{9}$ _____  | 6. $5 - 3\frac{7}{10}$ _____             |
| 7. $3\frac{1}{6} - 2\frac{1}{3}$ _____    | 8. $4\frac{3}{4} - 1\frac{2}{3}$ _____  | 9. $3\frac{1}{2} + 4\frac{1}{3}$ _____   |
| 10. $3\frac{3}{10} + 1\frac{3}{5}$ _____  | 11. $6\frac{1}{3} + 7\frac{1}{4}$ _____ | 12. $4\frac{3}{5} + 6\frac{7}{10}$ _____ |
| 13. $7\frac{15}{16} - 2\frac{3}{8}$ _____ | 14. $4 - 2\frac{3}{10}$ _____           | 15. $5\frac{1}{4} - 1\frac{3}{8}$ _____  |
| 16. $2\frac{1}{2} + 5\frac{3}{5}$ _____   | 17. $7\frac{1}{4} - 3\frac{3}{5}$ _____ | 18. $5 - 2\frac{5}{8}$ _____             |
| 19. $9\frac{3}{5} + 1\frac{7}{10}$ _____  | 20. $6 - 5\frac{5}{6}$ _____            | 21. $4\frac{7}{10} + 4\frac{1}{2}$ _____ |

22. Shea cut  $2\frac{1}{8}$  in. material off of the bottom of a  $21\frac{1}{4}$  in. skirt. How long is the skirt now?  
 \_\_\_\_\_

Grade 7 Topics

# Review 136

## Multiplying Fractions and Mixed Numbers

Follow these steps to multiply fractions and mixed numbers.

Multiply:  $\frac{3}{4} \cdot \frac{2}{5}$

Multiply:  $2\frac{2}{3} \cdot 1\frac{5}{8}$

$\frac{8}{3} \cdot \frac{13}{8}$

- ① Write the mixed numbers as improper fractions if necessary.

$\frac{3 \cdot 2}{4 \cdot 5} = \frac{6}{20}$

$\frac{8 \cdot 13}{3 \cdot 8} = \frac{104}{24}$

- ② Multiply numerators.  
Multiply denominators.

$\frac{6}{20} = \frac{3}{10}$

$\frac{104}{24} = 4\frac{1}{3}$

- ③ Simplify, if necessary.

Grade 7 Topics

Complete to find each product.

1.  $\frac{1}{5} \cdot \frac{2}{3}$

$\frac{1 \cdot 2}{5 \cdot 3} = \frac{\square}{\square}$

Product \_\_\_\_\_

2.  $\frac{1}{4} \cdot 4\frac{1}{8}$

$\frac{1}{4} \cdot \frac{\square}{8} = \frac{\square}{32}$

Product \_\_\_\_\_

3.  $2\frac{3}{4} \cdot 1\frac{2}{3}$

$\frac{\square}{4} \cdot \frac{\square}{3} = \frac{\square}{12}$

Product \_\_\_\_\_

Find each product. Write the product in simplest form.

4.  $\frac{5}{8} \cdot \frac{2}{5}$  \_\_\_\_\_

5.  $\frac{2}{3} \cdot 9$  \_\_\_\_\_

6.  $\frac{5}{12} \cdot \frac{3}{10}$  \_\_\_\_\_

7.  $\frac{3}{4} \cdot 1\frac{4}{5}$  \_\_\_\_\_

8.  $\frac{1}{2} \cdot 5\frac{1}{6}$  \_\_\_\_\_

9.  $3\frac{4}{5} \cdot \frac{1}{6}$  \_\_\_\_\_

10.  $1\frac{2}{3} \cdot 5$  \_\_\_\_\_

11.  $1\frac{3}{4} \cdot 3\frac{1}{7}$  \_\_\_\_\_

12.  $2\frac{3}{5} \cdot \frac{1}{4}$  \_\_\_\_\_

13.  $2\frac{3}{5} \cdot \frac{7}{8}$  \_\_\_\_\_

14.  $4\frac{1}{5} \cdot \frac{5}{7}$  \_\_\_\_\_

15.  $\frac{1}{2} \cdot 2\frac{1}{8}$  \_\_\_\_\_

16.  $3\frac{5}{6} \cdot 2\frac{1}{4}$  \_\_\_\_\_

17.  $2\frac{5}{7} \cdot 1\frac{1}{3}$  \_\_\_\_\_

18.  $7\frac{2}{3} \cdot 2\frac{1}{7}$  \_\_\_\_\_

19.  $5\frac{1}{2} \cdot 2\frac{2}{3}$  \_\_\_\_\_

20.  $\frac{5}{6} \cdot 3\frac{3}{5}$  \_\_\_\_\_

21.  $7\frac{3}{4} \cdot 2$  \_\_\_\_\_

Name \_\_\_\_\_

# Evaluating Expressions

Given  $a = 3$ ,  $b = 5$ , and  $c = 2$ , evaluate the expression.

$$\frac{9b + c^2}{a + c^2} =$$

$$\frac{9(5) + 4}{3 + 4} =$$

$$\frac{45}{3} = 15$$

**Wrong!**



**Right!**

Given  $a = 3$ ,  $b = 5$ , and  $c = 2$ , evaluate the expression.

$$\frac{9b + c^2}{a + c^2} =$$

$$\frac{[9(5) + 4]}{(3 + 4)} =$$

$$\frac{49}{7} = 7$$

## Remember

- Follow the order of operations (PEMDAS) when evaluating expressions.
- A fraction bar is a grouping symbol. It indicates division.
- When a number or letter is written next to a letter, it indicates multiplication.

$$\frac{9b + c^2}{a + c^2} = (9b + c^2) \div (a + c^2)$$

$$9b = 9(b) \text{ or } 9 \cdot b \text{ or } 9 \times b$$

Evaluate each expression given that  $a = 3$ ,  $b = 5$ , and  $c = 2$ .

- |  |  |   |
|--|--|---|
| 1. $a + b =$ <u>8</u> <span style="border: 1px solid black; padding: 2px;">a</span>      | 7. $2b - 2a =$ _____ <span style="border: 1px solid black; padding: 2px;">i</span> | 13. $(a + b)(b + c) =$ _____ <span style="border: 1px solid black; padding: 2px;">r</span>              |
| 2. $\frac{14}{c} =$ _____ <span style="border: 1px solid black; padding: 2px;">d</span>  | 8. $7ac =$ _____ <span style="border: 1px solid black; padding: 2px;">K</span>     | 14. $\frac{2(a + c)}{b} =$ _____ <span style="border: 1px solid black; padding: 2px;">s</span>          |
| 3. $4b + c =$ _____ <span style="border: 1px solid black; padding: 2px;">e</span>        | 9. $ab + c =$ _____ <span style="border: 1px solid black; padding: 2px;">l</span>  | 15. $b(c^2 + a) =$ _____ <span style="border: 1px solid black; padding: 2px;">u</span>                  |
| 4. $b - 2c =$ _____ <span style="border: 1px solid black; padding: 2px;">f</span>        | 10. $a^2 =$ _____ <span style="border: 1px solid black; padding: 2px;">m</span>    | 16. $\frac{6bc}{a + c} =$ _____ <span style="border: 1px solid black; padding: 2px;">W</span>           |
| 5. $5b =$ _____ <span style="border: 1px solid black; padding: 2px;">H</span>            | 11. $3a^2 =$ _____ <span style="border: 1px solid black; padding: 2px;">o</span>   | 17. $(2a - c)^2 + b =$ _____ <span style="border: 1px solid black; padding: 2px;">w</span>              |
| 6. $\frac{10a}{b} =$ _____ <span style="border: 1px solid black; padding: 2px;">h</span> | 12. $(3a)^2 =$ _____ <span style="border: 1px solid black; padding: 2px;">-</span> | 18. $\frac{a^2c^2 + 2(b + c)}{b} =$ _____ <span style="border: 1px solid black; padding: 2px;">z</span> |

Use the answer code to find the name of an important Arabic math scholar and the place where he studied in Baghdad in the 800s. The word *algebra* comes from the title of his math work.



a \_\_\_\_\_ a \_\_\_\_\_ ;  
 8 17 81 42 6 21 8 56 4 10 9 4

25 27 35 2 22 27 1 12 4 2 7 27 9



Name \_\_\_\_\_

# Two-Step Equations

$$\begin{aligned}
 3x - 6 &= 24 \\
 \frac{3x}{3} - 6 &= \frac{24}{3} \\
 x - 6 &= 8 \\
 x - 6 + 6 &= 8 + 6 \\
 x &= 14
 \end{aligned}$$

**Wrong!**



**Right!**

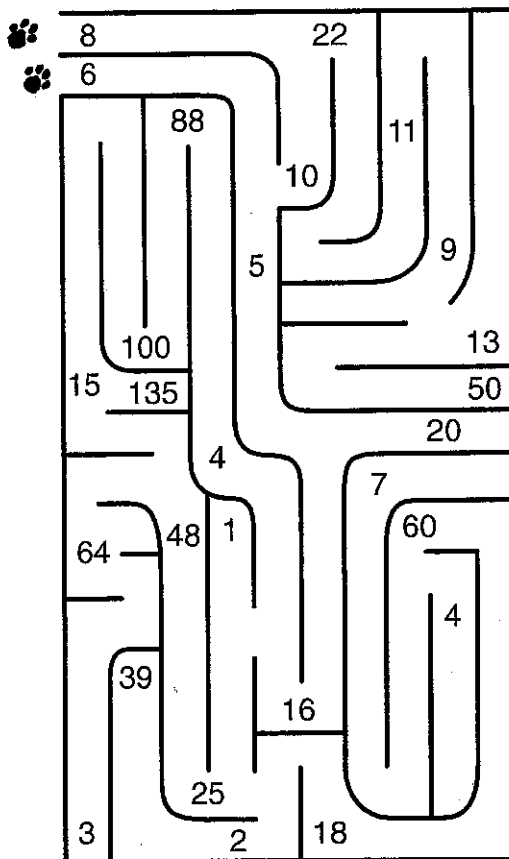
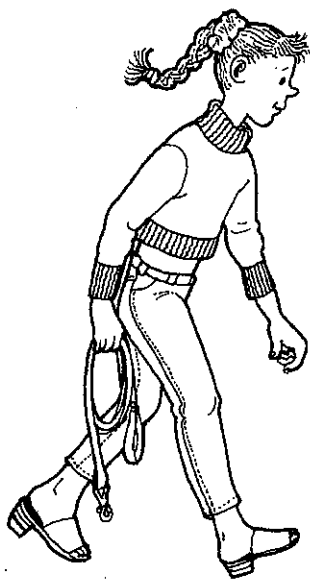
$$\begin{aligned}
 3x - 6 &= 24 \\
 3x - 6 + 6 &= 24 + 6 \\
 3x &= 30 \\
 \frac{3x}{3} &= \frac{30}{3} \\
 x &= 10
 \end{aligned}$$

**Tip**

When solving two-step equations, undo the addition or subtraction before undoing the multiplication or division.

Solve each equation. Use mental math to check your work by substituting your answer for  $x$  in the original equation. Follow the correct answers through the maze.

1.  $12x - 8 = 64$
2.  $5x + 4 = 29$
3.  $\frac{x}{2} + 1 = 9$
4.  $2x - 3 = 5$
5.  $\frac{x}{8} - 7 = 4$
6.  $\frac{x}{10} + 9 = 19$
7.  $3x + 6 = 51$
8.  $\frac{x}{4} + 2 = 14$
9.  $4x - 1 = 99$
10.  $\frac{x}{3} - 5 = 1$
11.  $10x - 500 = 100$
12.  $9x + 7 = 70$



# Review 150

## Percents, Fractions, and Decimals

To write a percent as a fraction, write a fraction with 100 as the denominator.

$$45\% = \frac{45}{100} \quad \leftarrow \text{Denominator 100}$$

$$= \frac{45 \div 5}{100 \div 5} = \frac{9}{20} \quad \leftarrow \text{Simplify.}$$

$$45\% = \frac{9}{20}$$

To write a decimal as a percent, multiply by 100.

Write 0.85 as a percent.

$$0.85 \cdot 100 = 85$$

$$0.85 = 85\%$$

To write a percent as a decimal, divide by 100.

Write 46% as a decimal.

$$46 \div 100 = 0.46$$

$$46\% = 0.46$$

Grade 7 Topics

Write each fraction as a percent.

1.  $\frac{3}{4}$   
\_\_\_\_\_

2.  $\frac{12}{25}$   
\_\_\_\_\_

3.  $\frac{4}{5}$   
\_\_\_\_\_

4.  $\frac{23}{4}$   
\_\_\_\_\_

Write each percent as a fraction in simplest form.

5. 45%  
\_\_\_\_\_

6. 60%  
\_\_\_\_\_

7. 16%  
\_\_\_\_\_

8. 25%  
\_\_\_\_\_

9. 37.5%  
\_\_\_\_\_

10. 99%  
\_\_\_\_\_

11. 40%  
\_\_\_\_\_

12. 86%  
\_\_\_\_\_

Write each percent as a decimal or each decimal as a percent.

13. 35%  
\_\_\_\_\_

14. 48%  
\_\_\_\_\_

15. 116%  
\_\_\_\_\_

16. 8%  
\_\_\_\_\_

17. 12%  
\_\_\_\_\_

18. 5.5%  
\_\_\_\_\_

19. 400%  
\_\_\_\_\_

20. 0.6%  
\_\_\_\_\_

21. 0.39  
\_\_\_\_\_

22. 0.735  
\_\_\_\_\_

23. 0.86  
\_\_\_\_\_

24. 0.34  
\_\_\_\_\_

25. 0.4  
\_\_\_\_\_

26. 0.6  
\_\_\_\_\_

27. 0.004  
\_\_\_\_\_

28. 6  
\_\_\_\_\_

Name \_\_\_\_\_

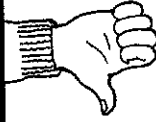
# Square Roots

~~$$\sqrt{256} =$$

$$\sqrt{25} + 6 =$$

$$5 + 6 = 11$$~~

**Wrong!**



**Right!**

$$\sqrt{256} =$$

$$\sqrt{4 \times 64} =$$

$$\sqrt{4} \times \sqrt{64} =$$

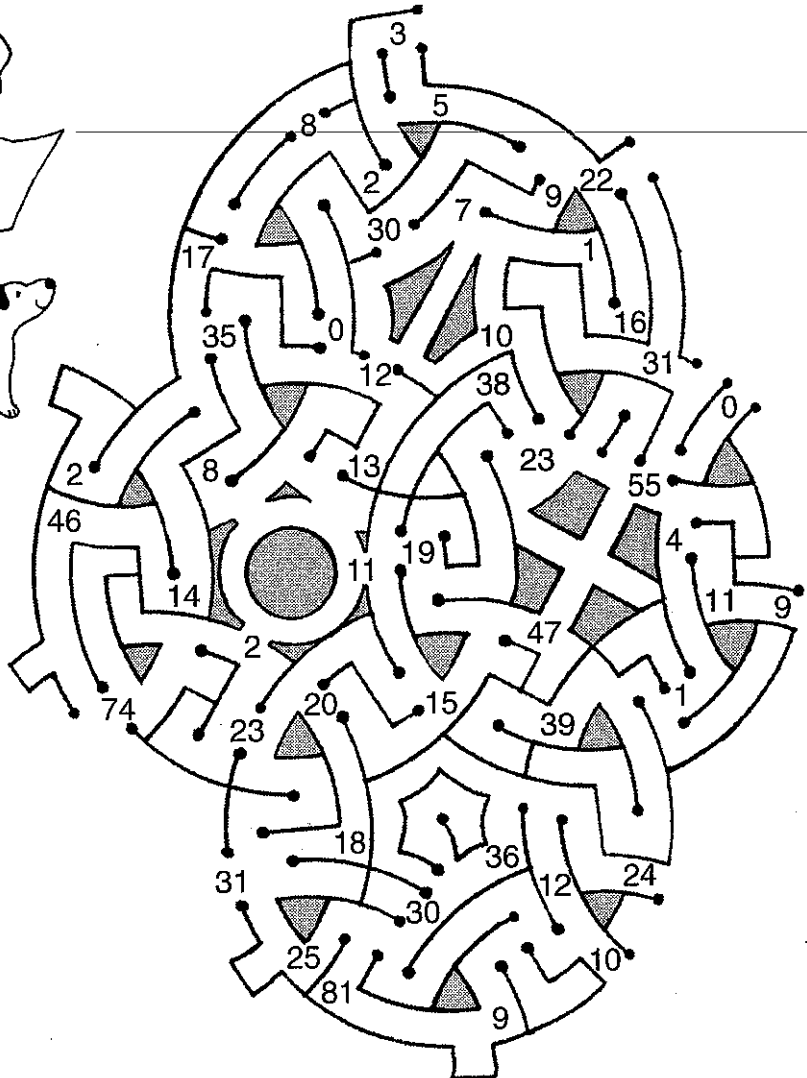
$$2 \times 8 = 16$$

**Tip**

Use prime factor trees and divisibility rules to help find square roots of large numbers.

Solve each problem. Follow the answers through the maze.

1.  $\sqrt{9} =$  \_\_\_\_\_
2.  $\sqrt{25} =$  \_\_\_\_\_
3.  $\sqrt{81} =$  \_\_\_\_\_
4.  $\sqrt{49} =$  \_\_\_\_\_
5.  $\sqrt{100} =$  \_\_\_\_\_
6.  $\sqrt{144} =$  \_\_\_\_\_
7.  $\sqrt{169} =$  \_\_\_\_\_
8.  $\sqrt{121} =$  \_\_\_\_\_
9.  $\sqrt{225} =$  \_\_\_\_\_
10.  $\sqrt{400} =$  \_\_\_\_\_
11.  $\sqrt{324} =$  \_\_\_\_\_
12.  $\sqrt{625} =$  \_\_\_\_\_
13.  $\sqrt{900} =$  \_\_\_\_\_
14.  $\sqrt{1,296} =$  \_\_\_\_\_
15.  $\sqrt{576} =$  \_\_\_\_\_



# Ordered Pairs

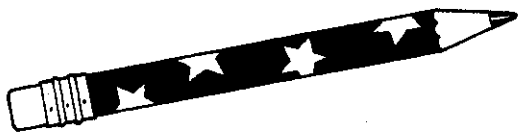
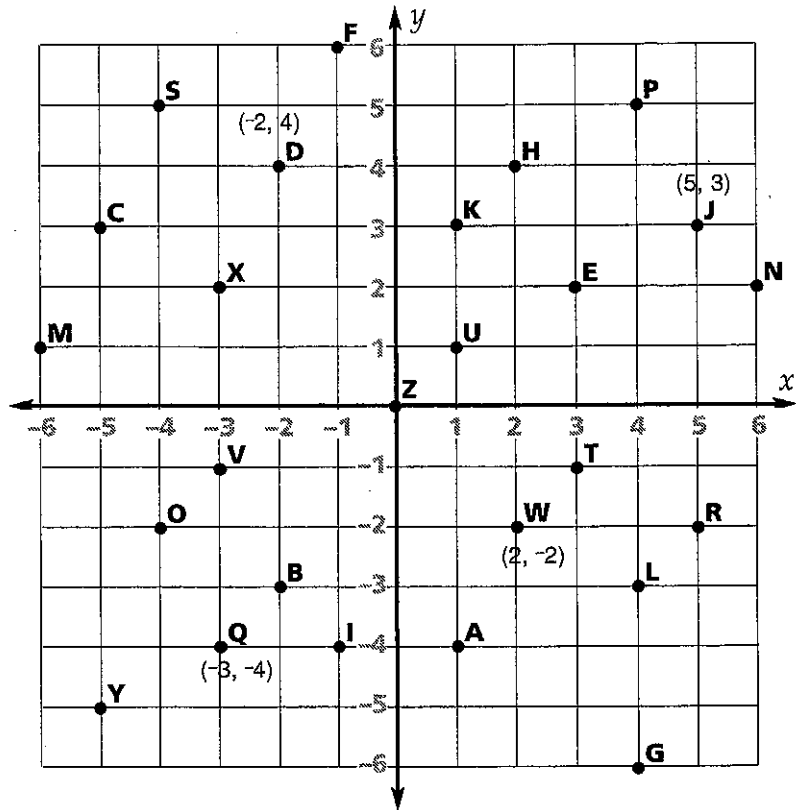
## Remember

The first number in an ordered pair is the  $x$ -coordinate. It tells where a point is located along the horizontal axis.

The second number in an ordered pair is the  $y$ -coordinate. It tells where a point is located along the vertical axis.

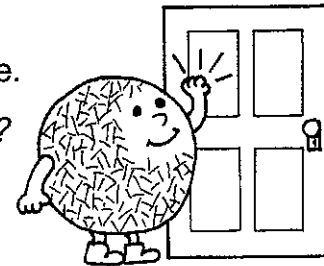
### Examples:

- D** (-2, 4)      **J** (5, 3)  
**Q** (-3, -4)      **W** (2, -2)



1. Write the letter from the graph that corresponds to each ordered pair to decode the punch line to this knock-knock joke.

**Knock-knock. Who's there? Cantaloupe. Cantaloupe who?**



\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
 (-5, 3) (1, -4) (6, 2) (3, -1)      (3, 2) (4, -3) (-4, -2) (4, 5) (3, 2)

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_!  
 (3, -1) (-4, -2) (6, 2) (-1, -4) (4, -6) (2, 4) (3, -1)      (-1, -4) (-6, 1)      (-2, -3) (1, 1) (-4, 5) (-5, -5)

2. Write a favorite riddle or knock-knock joke here. Encode the punch line by writing the matching ordered pair in place of each letter. Trade and solve riddles with a partner.

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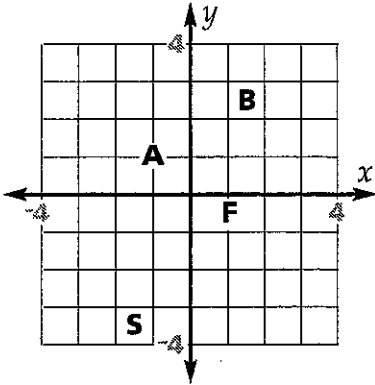
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Name \_\_\_\_\_

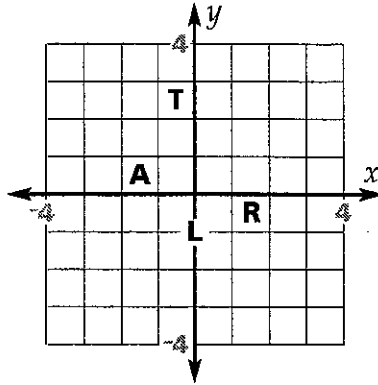
# Slope-Intercept Graphs

Graph each equation using the slope and  $y$ -intercept. Each line will cross one letter. Write that letter on the matching numbered line to spell out a message.

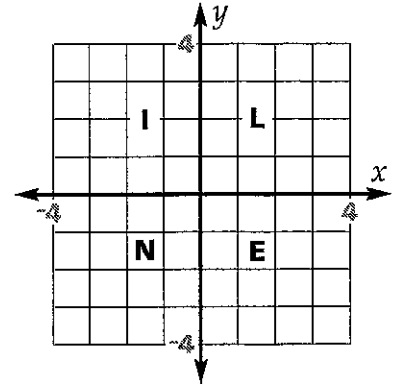
1.  $y = x + 1$



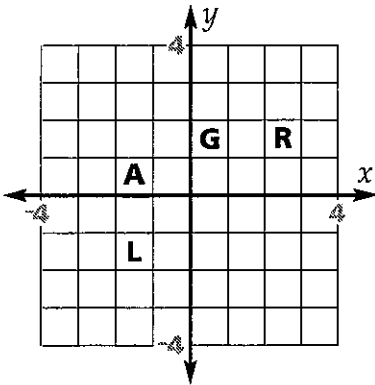
2.  $y = -x + 1$



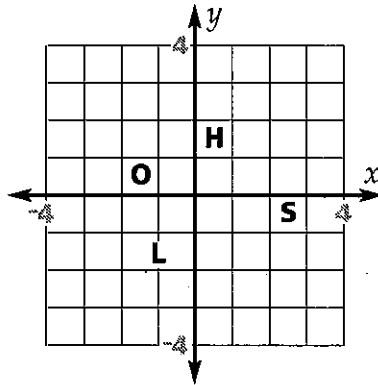
3.  $y = -2x - 1$



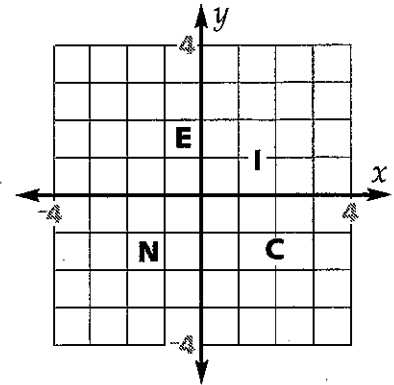
4.  $y = x$



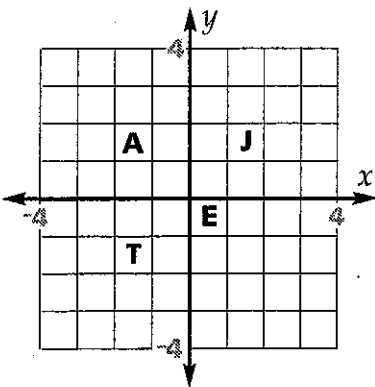
5.  $y = \frac{1}{2}x - 1$



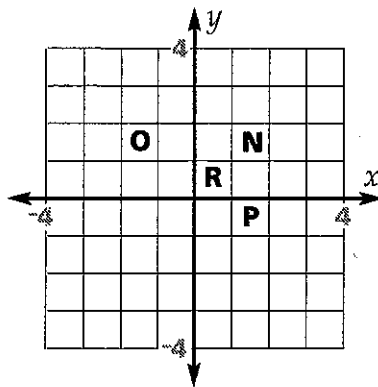
6.  $y = 2x - 2$



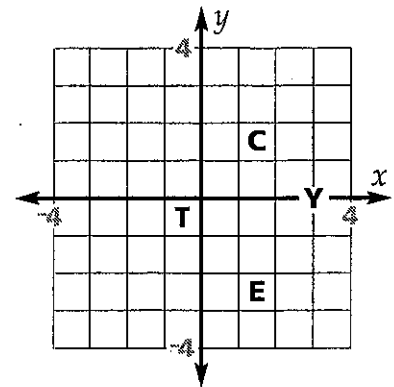
7.  $y = -3x - 3$



8.  $y = -\frac{1}{3}x + 2$



9.  $y = 3x + 1$



\_\_\_\_\_ !  
 1 2 3 4 5 6 7 8 9



Name \_\_\_\_\_

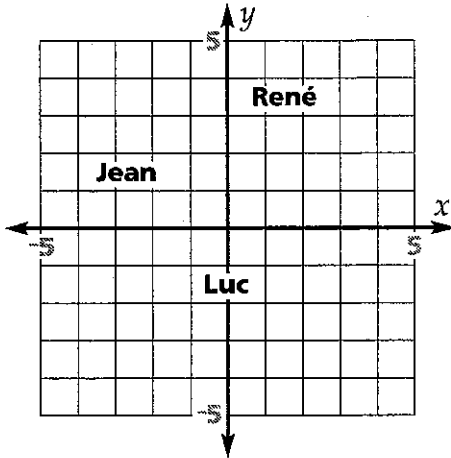
# Graphing Linear Equations

Complete the table of values for each equation and plot the matching points on the graph. Then draw a line connecting them. Each line will cross through a set of letters. Write the crossed sets of letters in order of the problems on the blanks in the box below.



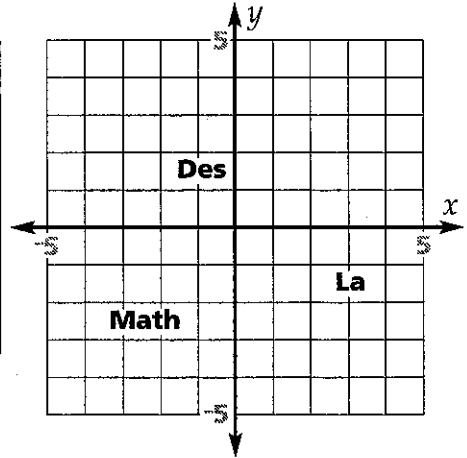
1.  $y = x + 2$

x	y
-3	
-1	
0	
3	



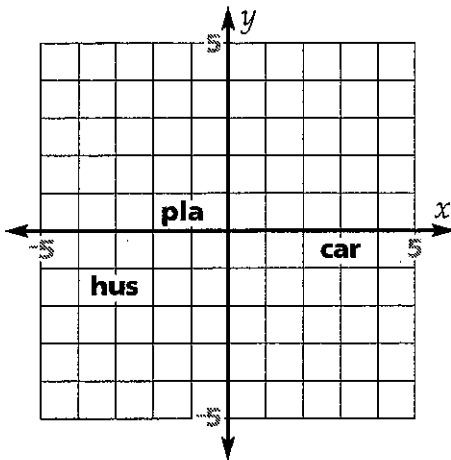
2.  $y = -2x$

x	y
-2	
0	
1	
2	



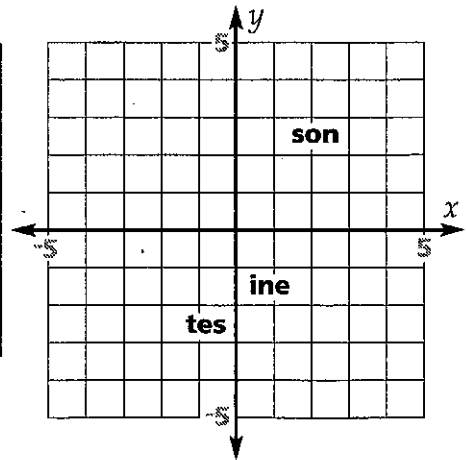
3.  $y = -\frac{1}{2}x + 1$

x	y
-4	
0	
2	
4	



4.  $y = 3x - 1$

x	y
-1	
0	
1	
2	



The coordinate plane is sometimes called the *Cartesian coordinate plane*.

It is named after the French mathematician \_\_\_\_\_  
 1                                  2                                  3                                  4