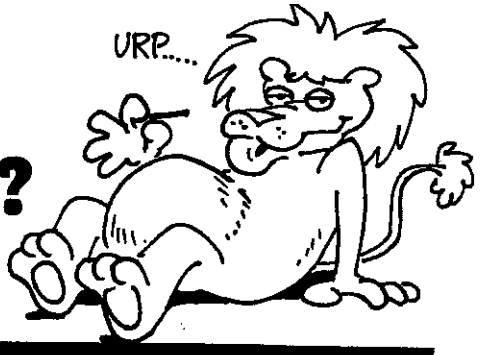
Why Did the Lion Eat the Tightrope Walker?



Write the letter of each exercise in the box containing the answer.
Answers for the top half of the page are in the top row of boxes.

Evaluate for $w = 5$, $x = 2$, $y = 8$.

E $9x$

N $w + x + y$

A $y - 1$

D $w \cdot w$

H xw

E $4(x + y)$

E $\frac{xy}{4}$

S $7.5 - w$

Evaluate for $p = 3$, $q = 10$, $d = 9$.

A $0.5d$

W $\frac{3q}{2p}$

R $\frac{1}{5}q$

H $3.8(q - d)$

E $2(p + q)$

T $\frac{p + q + d}{2}$

L $100 - d$

M $(q \cdot q \cdot q) - 1$

2.5	10	26	8.5	5	4.5	15	11	18	25	19	3.8	4	2	815	999	40	7	91

Evaluate for $a = 12$, $b = 7$, $c = 4$.

A ac

D $48 - (a + c)$

O $\frac{5a}{8}$

E $\frac{ab}{c}$

E $(2b) + (5c)$

N $c(9.2)$

L $\frac{72}{2c}$

T $\frac{2}{3}a$

Evaluate for $m = 6$, $n = 15$, $e = \frac{1}{3}$.

A $3(m + n)$

B $5[n - (m + 1)]$

B en

C $e(m + n)$

E $\frac{n}{m}$

W $2m(n - 3)$

L $4(e + e + e)$

L $\frac{m}{n} \cdot \frac{n}{m}$

8	7.5	200	5	21	1.5	144	34	4	9	12	40	63	1	48	36.8	7	2.5	32

How Can You Avoid Getting a Flat Tire?

Write the letter of the answer in the box containing the exercise number. If the answer has a solid circle, fill in the box instead of writing a letter.

Simplify the expression.

1. $90 + 9 \cdot 2$
2. $30 - 15 \div 5$
3. $4 \cdot 3 + \frac{35}{5}$
4. $64 \div 8 \cdot 2^2$
5. $7 + 2(15 - 6)$
6. $\frac{16 \cdot 3 - 4}{16 - 3 \cdot 4}$
7. $25 - (2 + 2) \cdot 3$
8. $7 \cdot 3^2 - 20 + 1$

Evaluate for the given values of the variables.

17. $8 + 3n$ for $n = 6$
18. $(8 + 3)n$ for $n = 6$
19. $90 - 4d$ for $d = 3$
20. $7x + 2y$ for $x = 15, y = 20$
21. $\frac{8b + 1}{7 - 2a}$ for $a = 2, b = 4$
22. $2 + 5x^2$ for $x = 4$
23. $2 + (5x)^2$ for $x = 4$
24. $(2 + 5x)^2$ for $x = 4$

O	27
●	32
P	39
A	25
E	108
●	44
I	11
K	19
T	13
K	11
O	26
R	402
D	78
H	484
O	145
●	66
N	428
●	82

Simplify the expression.

9. $6(5 - 3)^3$
10. $9(15 - 3 + 4)$
11. $9[15 - (3 + 4)]$
12. $10^2 + 7\left(\frac{60}{5}\right)$
13. $\frac{2}{5}(4 + 4 \cdot 4)$
14. $18 \div 2 \cdot 3 + 5^3$
15. $\frac{8 + (7 - 1)^2}{20 - 9 \cdot 2}$
16. $5[4^3 - 2(9 + 6)]$

Evaluate for the given values of the variables.

25. $3[n + 2(11 - n)]$ for $n = 6$
26. $x^2 + xy - y^2$ for $x = 10, y = 3$
27. $7 + ab^3$ for $a = 8, b = 5$
28. $\frac{36 + 4kt}{36 - 4kt}$ for $k = 2, t = 3$
29. $100 - 2d^2 \div 9$ for $d = 6$
30. $\frac{1}{4}(m - 1)^2$ for $m = 9$
31. $\left[\frac{1}{4}(m - 1)\right]^2$ for $m = 9$
32. $5 + 5w - \frac{w}{5}$ for $w = 15$

T	144
●	184
R	170
H	72
N	152
S	166
O	48
E	22
O	8
F	92
S	83
R	77
U	16
L	1007
O	4
●	121
F	48
T	5

27	9	20	21	12	2	30	7	4	25	13	16	18	28	11	15
29	17	32	3	26	6	14	22	10	24	1	8	23	31	5	19

How Did Coach Trax Teach Tonka to High Jump?

For each set of exercises, there is one extra answer. Write the letter of this answer in each box containing the number of that set.

For Sets 1-4, multiply the fraction by 1. Use the indicated expression for 1.

1	a. $\frac{7}{8}$ Use $\frac{3}{3}$ for 1.	b. $\frac{9}{2}$ Use $\frac{8}{8}$ for 1.	M $\frac{72}{16}$	U $\frac{72}{24}$	A $\frac{21}{24}$
2	a. $\frac{n}{4}$ Use $\frac{d}{d}$ for 1.	b. $\frac{7n}{4d}$ Use $\frac{2}{2}$ for 1.	I $\frac{nd}{8d}$	O $\frac{nd}{4d}$	E $\frac{14n}{8d}$
3	a. $\frac{2a}{b}$ Use $\frac{3x}{3x}$ for 1.	b. $\frac{a}{3x}$ Use $\frac{a}{a}$ for 1.	L $\frac{6ax}{3bx}$	R $\frac{3a^2}{3bx}$	Y $\frac{a^2}{3ax}$
4	a. $\frac{4e}{9t}$ Use $\frac{et}{et}$ for 1.	b. $\frac{2t}{5e}$ Use $\frac{2e}{2e}$ for 1.	W $\frac{4et}{10e^2}$	B $\frac{4e^2t}{9et^2}$	H $\frac{4et^2}{10et}$

For Sets 5-14, simplify the expression.

5	a. $\frac{25}{35}$	b. $\frac{36}{27}$	c. $\frac{56}{7}$	F $\frac{4}{3}$	N $\frac{4}{7}$	D $\frac{5}{7}$	G 8
6	a. $\frac{12}{60}$	b. $\frac{20}{84}$	c. $\frac{130}{13}$	L 10	S $\frac{1}{5}$	T $\frac{5}{13}$	P $\frac{5}{21}$
7	a. $\frac{3a}{3b}$	b. $\frac{ab}{7b}$	c. $\frac{5a}{10ab}$	J $\frac{a}{10b}$	B $\frac{a}{7}$	D $\frac{1}{2b}$	M $\frac{a}{b}$
8	a. $\frac{x}{6xy}$	b. $\frac{30xy}{80y}$	c. $\frac{64xy}{16xy}$	A $\frac{1}{6y}$	K $\frac{x}{4y}$	O 4	C $\frac{3x}{8}$
9	a. $\frac{30pq}{72p}$	b. $\frac{11q}{99pq}$	c. $\frac{75pq}{45qp}$	P $\frac{5q}{9p}$	V $\frac{5}{3}$	W $\frac{5q}{12}$	D $\frac{1}{9p}$
10	a. $\frac{n^2}{7n}$	b. $\frac{49n}{63n^2}$	c. $\frac{35n^2}{18n^2}$	L $\frac{7}{9n}$	E $\frac{n}{7}$	M $\frac{35}{18}$	S $\frac{7}{2n}$
11	a. $\frac{xy^2}{x^2y}$	b. $\frac{15x^2}{20xy}$	c. $\frac{36xy}{12x^2y^2}$	C $\frac{3}{xy}$	D $\frac{3x}{4y}$	G $\frac{3y}{x}$	F $\frac{y}{x}$
12	a. $\frac{18dw}{15d^2w}$	b. $\frac{16dw^2}{40w^2}$	c. $\frac{21d^2w}{63d^2w^2}$	O $\frac{6}{5d}$	E $\frac{2d}{3w}$	Y $\frac{2d}{5}$	A $\frac{1}{3w}$
13	a. $\frac{75ab}{100ac}$	b. $\frac{28abc}{12ab}$	c. $\frac{42cba}{6abc}$	B 7	L $\frac{7c}{3}$	M $\frac{3b}{4c}$	V $\frac{7}{4b}$
14	a. $\frac{6p^2q}{9q^2r}$	b. $\frac{17qr^2}{7pq^2}$	c. $\frac{55pqr}{35p^2q^2}$	O $\frac{17r}{3pq}$	A $\frac{2p^2}{3qr}$	C $\frac{17r^2}{7pq}$	W $\frac{11r}{7pq}$

4	12	7	1	10	6	8	12	9	6	11	14	2	5	11	14	13	12	3	2	6

What Does Joe Starbuck Never Wear While Drinking Coffee?

Cross out the letter next to each correct answer. When you finish, the answer to the title question will remain.

In Exercises 1-8, use the distributive property to write an equivalent expresssion.

1. $7(x + y)$
2. $4(n + 9)$
3. $5(11 + 2y)$
4. $n(x + y)$
5. $x(x + 8y)$
6. $(9n + 30)2$
7. $7(4x + 3y + 1)$
8. $y(8x + 5y + 6)$

In Exercises 9-16, factor the expression.

9. $6a + 6b$
10. $2a + 18$
11. $ea + eb$
12. $a^2 + 3a$
13. $5b + 60$
14. $eb + 13b$
15. $3a + 9b + 6$
16. $7a^2 + 7a + 35$

In Exercises 17-24, combine like terms.

17. $8m + 3m$
18. $4q + 9 + q$
19. $5p + 6q + 12p$
20. $7 + 7p + 16 + p$
21. $2p + 9q + 20 + 3p + 4q$
22. $8p + 5q + 1 + 7p + 7q + 24$
23. $11 + 4m + 5 + m + 18 + 6m$
24. $3q + 10p + 18 + 9q + 38p + q$

Answers 1-8	
18n + 60	O
28x + 10y + 8	I
7x + 7y	N
18n + 36	O
55 + 10y	F
$8xy + 5y^2 + 6y$	A
$x^2 + 8xy$	R
4n + 36	A
28x + 21y + 7	T
8xy + 21y + 6	H
nx + ny	

Answers 9-16	
$7(a^2 + 3b + 8)$	S
$3(a + 3b + 2)$	O
$2(a + 9)$	E
$b(e + a)$	H
$e(a + b)$	S
$5(b + 12)$	O
$6(a + b)$	S
$3(a + 5b + 4)$	A
$7(a^2 + a + 5)$	N
$a(a + 3)$	U
$b(e + 13)$	H

Answers 17-24	
15p + 12q + 25	S
11m	A
11m + 38	I
17p + 6q	L
48p + 13q + 18	T
5p + 13q + 20	O
5q + 9	P
15p + 16q + 18	D
11m + 34	E
48p + 11q + 20	E
8p + 23	U

PARTNER A (left side)	TEAM NAME	PARTNER B (right side)

HOW DO YOU MAKE AN OCTOPUS LAUGH?

Simplify each expression. Partner A should do the left side and Partner B the right side. After completing each set, find matching answers. One will have a letter and the other a number. Write the letter in the matching numbered box at the bottom of the page.

SET 1	SET 1
T. $-7n + 2n + 9$	**8.** $-12n + 5n + 4$
I. $5n - (-3n) + 6$	**16.** $7n - (-2n) + 8$
E. $4 - n - 6n$	**10.** $9 - n - 4n$
S. $16n + 5 + (-7n) + 3$	**5.** $11n + 5 + (-3n) + 1$

SET 2	SET 2
I. $9b + (-18) - 3b + 11$	**12.** $7b + (-22) - 5b + 7$
E. $-12b - 5 - 8 + 3b$	**6.** $-9b - 1 + 18 + 4b$
T. $7 - 7b + 10 - (-2b)$	**15.** $-10 - 14b - 3 - (-5b)$
C. $-15 + 6b + (-3b) - b$	**2.** $-7 + 13b + (-6b) - b$

SET 3	SET 3
E. $7k + 4 + 4k - 9 - 5k$	**9.** $9k - 11 + 2k - 7 - 4k$
K. $-k - (-8k) - 15 + 3k - 2$	**4.** $-k - (-5k) + 9 + 2k - 14$
N. $-5 + 12k - 16 + (-5k) + 3$	**1.** $-4 + 11k - 10 + (-17k) + 3$
G. $8 + (-3k) - 20 - 3k - (-1)$	**13.** $6 + (-3k) - 24 + 13k - (-1)$

SET 4	SET 4
I. $5x + 9y + 4 + 2x - y - 15$	**3.** $4x - 5y + 9 + 2x - y - 14$
V. $-2x + y + 6 - (-8x) - 7y + (-11)$	**14.** $-12x + y + 7 - (-x) + 9y + (-7)$
L. $-x + 4y - 7x + 8y + (-3x) - 2y$	**7.** $-x + 2y + 8x - 5y + (-6x) - 4y$
T. $9 + y - (-x) - 5 - 8y - 4$	**11.** $4 - (-7y) + 7x - 14 + y - 1$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Why Did Time Seem To Go Quickly at the Glue Factory?

Simplify the expression, then evaluate it for the given value of the variable. Find the simplified expression in the answer column. Write the letter of the simplified expression in the box that contains the value of the expression.

1. $-2x + 7 + 9x - 4$ if $x = 11$

2. $8 + 3x - (-5x) + 11$ if $x = -2$

3. $x - 12 + (-6x) - 1$ if $x = -8$

4. $-16 - 7x - x - (-5) + 2x$ if $x = 6$

5. $3(x - 4) + 10x$ if $x = -1$

6. $8x - 5(x + 6) - 8$ if $x = 20$

7. $15 - 2(7 - x) + 4x$ if $x = -9$

8. $12 - 3n + 4(2n + 5)$ if $n = 14$

9. $2n - 7(8 - 3n) + 6$ if $n = 3$

10. $-n + 9(-2n - 11) - 4$ if $n = -5$

11. $20\left(\frac{1}{5}n - \frac{3}{4}\right) + 9n$ if $n = -4$

12. $8 - \frac{2}{3}(6 - 15n) + n$ if $n = 7$

13. $n(n + 7) - 16n$ if $n = 10$

14. $10 - n(3n - 4) - n^2$ if $n = -3$

Simplified Expressions

I. $-5x - 13$
E. $13x - 38$
S. $6x + 1$
T. $7x + 3$
S. $-6x - 11$
A. $3x - 38$
R. $6x - 12$
A. $8x + 19$
E. $13x - 12$
N. $3x + 1$

A. $23n - 50$
S. $-4n^2 + 4n + 10$
L. $2n^2 - 7n$
P. $11n + 4$
W. $-19n - 103$
E. $13n + 4$
T. $5n + 32$
F. $n^2 - 9n$
S. $11n - 103$
T. $13n - 15$

27	102	96	−8	3	−53	−59	10	22	−47	−67	13	81	19	−38	80	−25

Did You Hear About . . .

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22 ?

Simplify the expression. Then write the word next to the correct answer in the box containing the exercise number.

1. $-5 + (-16) + 9$

2. $-4(3 - 10)$

3. $\frac{36}{-4} + \frac{-60}{12}$

4. $-15 - (-4) - 7$

5. $\frac{-18 - 12}{-18 + 12}$

6. $2(-5)^3$

7. $\left(\frac{3}{8}\right)\left(\frac{8}{3}\right)(-83)$

8. $-10 + 3(-4)(-5)$

9. $\frac{1}{4}(-8)^2$

10. $11(-4) + (-16)(-3)$

11. $\frac{74 - (-3)}{13 + (-20)}$

12. $(-3)^4(-1)^7$

13. $\frac{-5 - (-44)}{-2 + 15}$

14. $-7(-8)(-9)(-10)$

15. $\left(\frac{2}{7}\right)\left(\frac{1}{3}\right)\left(-\frac{4}{5}\right)$

16. $5 + (-2) - 7 - (-18)$

17. $\frac{3}{4}$ of -60

18. $(-8 - 11) - (8 - 11)$

19. $\frac{-490}{-49} + \frac{-490}{10}$

20. $(-0.6)^2(-10)^3$

21. $\frac{(11 \cdot 4) - (-5 \cdot 12)}{-2}$

22. $-\frac{1}{4} + \frac{3}{5} - \frac{7}{10}$

Answers 1-11

- -250 • THE
- -9 • CHAPTER
- 50 • TO
- -12 • THE
- -25 • WROTE
- -14 • WHO
- 4 • FIFTH
- -83 • THIRD
- 28 • WRITER
- 44 • UP
- -11 • FLOOR
- 5 • FROM
- -22 • THAT
- 16 • THE
- -18 • MOVED
- 7 • EIGHTH

Answers 12-22

- -241 • WHEN
- 14 • OF
- $-\frac{8}{85}$ • HAVING
- -52 • OLD
- 5040 • WAS
- -360 • SAME
- -13 • WITH
- -45 • WORKING
- -81 • BECAUSE
- $-\frac{8}{105}$ • TIRED
- -42 • WRITING
- -39 • THE
- $-\frac{7}{20}$ • STORY
- 3 • SHE
- -16 • ON
- $-\frac{9}{20}$ • BOOK

What Did Dr. Freud Say To the Guy Who Thought He Was Mickey Mouse One Day and Donald Duck the Next?

Solve the equation, then find your solution in the corresponding answer boxes. Write the letter of the exercise in the box containing the answer.

A $8 + x = 40$

I $\frac{a}{5} = -16$

O $y - 17 = -4$

E $-9b = -99$

G $-3 = k + 75$

A $-\frac{1}{8}w = -13$

N $-11 + m = 50$

U $65 = 2x - 7x$

H $10 - (-d) = 3$

Y $\frac{4}{5}b = 12$

R $15 + u - 22 = 9^2$

V $9n = \frac{1}{4}$

15	13	−13	$\frac{1}{12}$	32	88	11	75	−7	104	$\frac{1}{36}$	−80	61	−78

S $-5 = \frac{-a}{36}$

E $p - (-1) = (-7)^2$

L $30 = -12y$

I $w - \frac{2}{9} = \frac{5}{9}$

S $-\frac{5}{8}x = 30$

Y $-2 \cdot 7 = -3 + t + 24$

E $-4.5q = -32.4$

S $-4c - 9.6 + 5c = 0$

L $-\frac{3}{4}m = -\frac{9}{16}$

D $18 = b + 5^3$

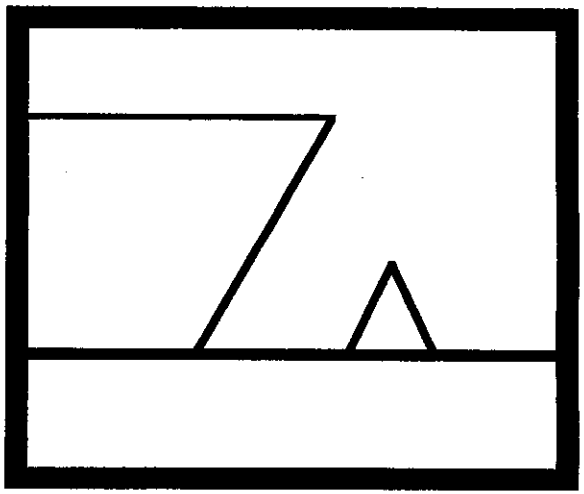
P $n - \frac{1}{3} = \frac{2}{5}$

N $8x - 9x = \frac{150}{10}$

$\frac{5}{8}$	−107	$\frac{7}{9}$	9.6	−15	48	−35	−92	180	$\frac{11}{15}$	7.2	$\frac{3}{4}$	−2.5	−48

WHAT IS THE TITLE OF THIS PICTURE?

Find each solution in the coded title. Each time it appears, write the letter of the exercise above it.



CODED TITLE:

135	-65	-2	-98	-9	48	-14	-14	-2	7	-2	-8	105
-81	60	60	-17	104	48	-81	-3	-72	-81	60	5	135	48	7	-3
48	122	11	-14	60	144	-8	-2	-8	105	43	144	-2	-81	-12	-65

V $5x + 8 = 43$

A $2n - 15 = 81$

C $-9a + 4 = 112$

N $-3 + 10y = -83$

O $\frac{w}{4} + 7 = 22$

T $\frac{x}{9} - 1 = -10$

L $\frac{d}{-8} + 37 = 24$

P $11 - \frac{k}{2} = 60$

E $-5 - 16y = 43$

G $\frac{-u}{7} + 2 = -13$

D $15 - 8m = -73$

S $\frac{1}{3}x + 10 = 55$

R $7t - 18 = -116$

H $-\frac{1}{5}q - 4 = 9$

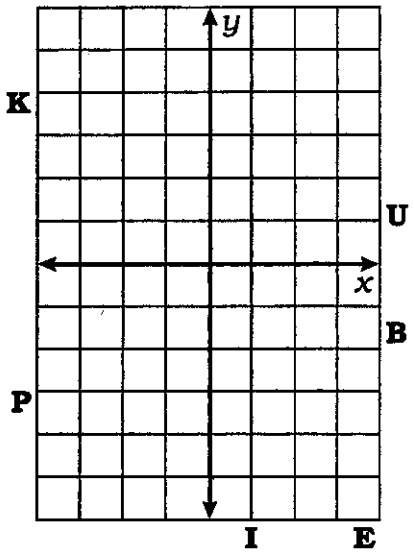
I $72 + 36n = 0$

W $7 - \frac{1}{16}x = -2$

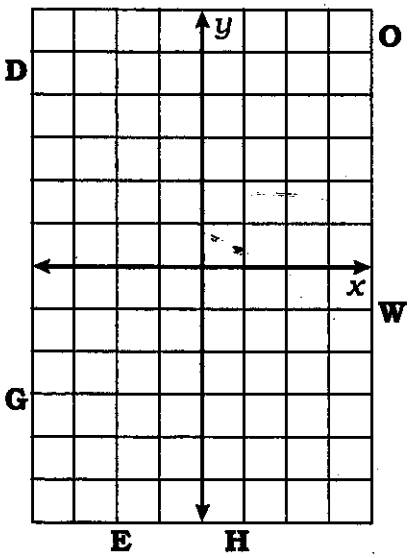
What Happened to the Guy Who Fell Into an Upholstery Machine?

Use the slope and y-intercept to graph each equation. The graph, if extended, will cross a letter. Write this letter in the box containing the exercise number.

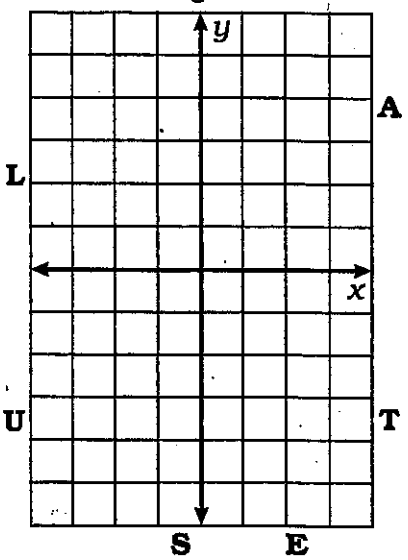
1. $y = \frac{3}{4}x - 2$
2. $y = -2x + 1$
3. $y = -\frac{5}{2}x - 4$



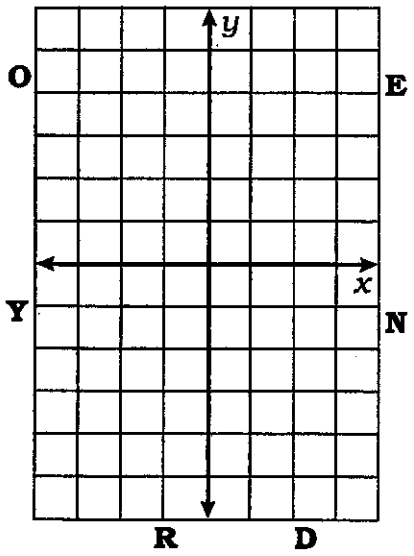
4. $y = \frac{1}{3}x + 4$
5. $y = 3x - 1$
6. $y = -\frac{7}{4}x - 5$



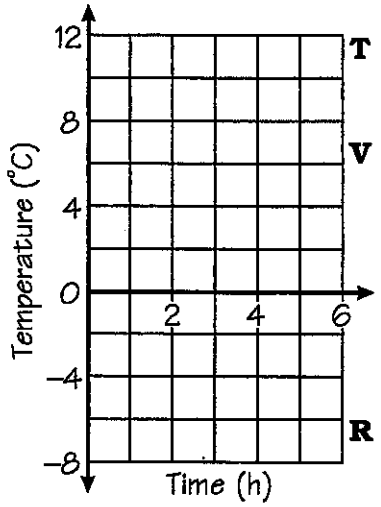
7. $y = -\frac{1}{2}x$
8. $y = -4x + 3$
9. $y = \frac{8}{3}x - 5$



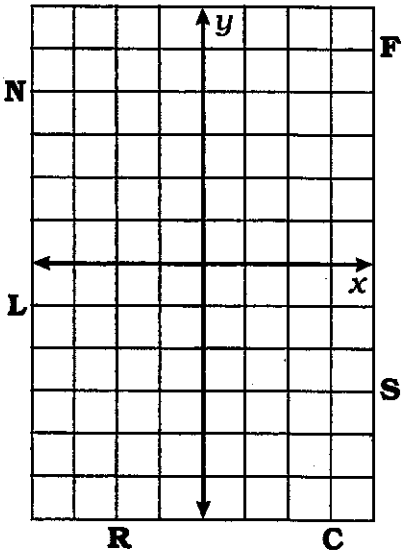
10. $y = x + 3$
11. $y = -x - 4$
12. $y = x$



13. The temperature is –6°C and rising at a rate of 2° per hour.
14. The temperature is 12°C and dropping at a rate of 3° per hour.



15. $y = 5$
16. $x = -2$
17. $y = -1$
18. $x = 3$



6	12	3	9	15	1	17	7	10	14	8	18	4	13	2	16	5	11