

# How Might a Pair of Snakes Be Used For Driving in the Rain?

Solve each equation or problem. Find your solution and note the two letters next to it. Write these letters in the two boxes above the exercise number at the bottom of the page.

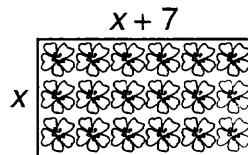
1  $3x + 2(5x + 4) = 47$

2  $x - 3(2x - 7) = 76$

3 Jack said, "Five times my age in 2 years is 100." How old is Jack now?

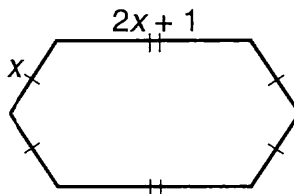
4 Jill said, "Eight times my age 3 years ago equals 104." How old is Jill now?

5 The length of a rectangular garden is 7 ft more than the width. The perimeter is 50 ft. Find the width.



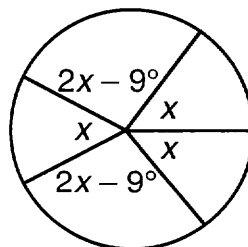
6 The length of a rectangle is 3 cm less than 4 times the width. The perimeter is 114 cm. Find the width.

7 The perimeter of this hexagon is 162 cm. Each longer side measures 1 cm more than twice a shorter side. Find the length of the side labeled  $x$ .



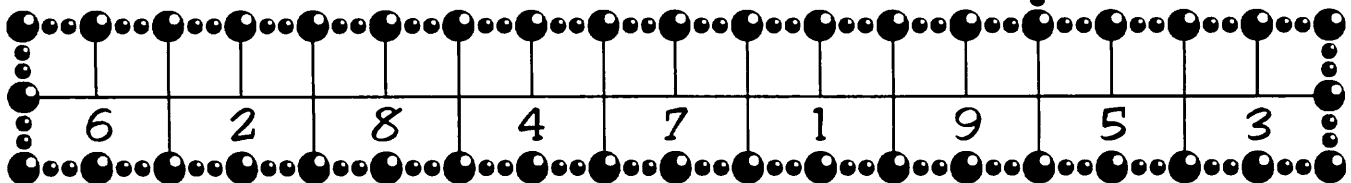
8 A tape costs \$4 less than a CD. Oshkosh bought one CD and five tapes. If the total cost was \$70, what was the price of the CD?

9 The sum of the measures of the central angles of a circle is  $360^\circ$ . Find the measure of each angle labeled  $x$ .



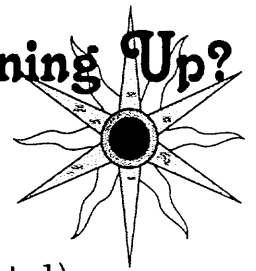
answers

R	E	\$17
A	S	12 cm
C	A	8 ft
R	S	18
T	O	$48^\circ$
L	D	3
I	E	20 cm
D	E	\$13
P	E	9 ft
L	O	13 cm
V	I	$54^\circ$
O	N	14
N	D	\$15
W	I	-11
I	N	18 cm
S	H	16



# How Can You Visit the Sun Without Burning Up?

Solve each problem, then cross out the letter next to the correct answer. When you're finished, the answer to the title question will remain.



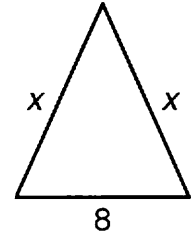
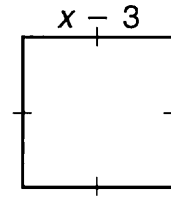
N	-1
T	\$6400
O	70°
H	470
T	10
E	36
G	8 h
I	44
B	\$510
S	7
N	\$8000
I	500
T	-3
A	32
O	\$580
B	\$7500
E	20
G	65°
A	5 h
L	6 h
B	28

1  $5(x - 9) = 2x + 15$

2  $7n - 20 = 9(4n + 1)$

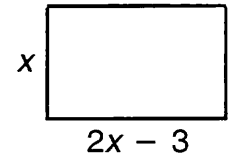
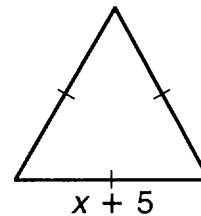
- 3 The square and the triangle have equal perimeters.

- A. Find the value of  $x$ .  
B. Find the perimeter.



- 4 The equilateral triangle and the rectangle have equal perimeters.

- A. Find the value of  $x$ .  
B. Find the perimeter.



- 5 The Red Bus Company charges \$150 plus \$72 per hour to rent a bus. The Blue Bus Company charges \$240 plus \$54 per hour.

- A. For what number of hours would the companies charge the same?  
B. What would the charge be for that number of hours?

- 6 Suppose it is  $40^\circ$  inside your refrigerator and  $340^\circ$  inside your oven when the power goes out. The refrigerator temperature starts rising at the rate of  $5^\circ$  per hour. The oven temperature starts dropping at the rate of  $45^\circ$  per hour.

- A. How long will it take for the temperatures to be the same?  
B. What will the temperature be then?

- 7 Suppose you write a book. The printer charges \$4 per book to print it, and you spend \$5500 on advertising. You sell the book for \$15 a copy.

- A. How many copies must you sell to break even (total cost equals income from sales)?  
B. What is your income (or costs) for that many copies?