

Key



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

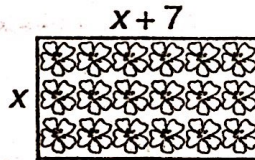
3 Jack said, "Five times my age in 2 years is 100." How old is Jack now?

$5(x+2) = 100$

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

$8(x-3) = 104$

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

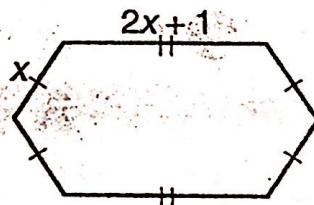


$2(x+7) + 2x = 50$

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

$2(4x-3) + 2x = 114$

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 .

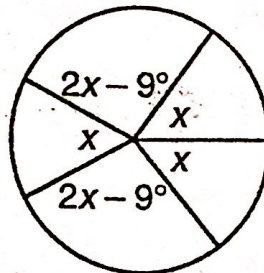


$2(2x+1) + 4x = 162$

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?

$5(x-4) + x = 70$

9 The sum of the measures of the central angles of a circle is 360° . Find the measure of each angle labeled x .



$2(2x-9) + 3x = 360$

answers

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

AS | WINDSHIELD | WIPERS

6 | 2 | 8 | 4 | 7 | 1 | 9 | 5 | 3

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$$\begin{aligned}
 \textcircled{1} \quad 3x + 2(5x + 4) &= 47 \\
 3x + 10x + 8 &= 47 \\
 13x + 8 &= 47 \\
 \underline{-8} \quad \quad \quad \underline{-8} & \\
 13x &= 39 \\
 \underline{13} \quad \quad \quad \underline{13} & \\
 x &= 3
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{2} \quad x - 3(2x - 7) &= 76 \\
 x - 6x + 21 &= 76 \\
 -5x + 21 &= 76 \\
 \underline{-21} \quad \quad \quad \underline{-21} & \\
 -5x &= 55 \\
 \underline{-5} \quad \quad \quad \underline{-5} & \\
 x &= -11
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{3} \quad 5(x + 2) &= 100 \\
 5x + 10 &= 100 \\
 \underline{-10} \quad \quad \quad \underline{-10} & \\
 5x &= 90 \\
 \underline{5} \quad \quad \quad \underline{5} & \\
 x &= 18 \text{ years}
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{5} \quad P &= 2l + 2w \\
 50 &= 2(x + 7) + 2(x) \\
 50 &= 2x + 14 + 2x \\
 50 &= 4x + 14 \\
 \underline{-14} \quad \quad \quad \underline{-14} & \\
 36 &= 4x \\
 \underline{4} \quad \quad \quad \underline{4} & \\
 9 \text{ ft} &= x
 \end{aligned}$$



$$\begin{aligned}
 \textcircled{4} \quad 8(x - 3) &= 104 \\
 8x - 24 &= 104 \\
 \underline{+24} \quad \quad \quad \underline{+24} & \\
 8x &= 128 \\
 \underline{8} \quad \quad \quad \underline{8} & \\
 x &= 16 \text{ years}
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{6} \quad P &= 2l + 2w \\
 114 &= 2(4x - 3) + 2(x) \\
 114 &= 8x - 6 + 2x \\
 114 &= 10x - 6 \\
 \underline{+6} \quad \quad \quad \underline{+6} & \\
 120 &= 10x \\
 \underline{10} \quad \quad \quad \underline{10} & \\
 12 \text{ cm} &= x
 \end{aligned}$$

