

The sum of two numbers is 12.
The difference of the numbers is 6. Find both numbers.

Feb 8-9:30 AM

The sum of two numbers is 12.
The difference of the numbers is 6. Find both numbers.

Let $x = \text{smaller \#} = 3$
 $y = \text{larger \#} = 9$

$$\begin{array}{r} x+y=12 \\ y-x=6 \\ \hline +x+x \\ \hline y=x+6 \end{array}$$

$$\begin{array}{r} x+y=12 \\ x+x+6=12 \\ 2x+6=12 \\ \underline{-6-6} \\ 2x=6 \quad x=3 \end{array}$$

$$\begin{array}{r} y=x+6 \\ y=3+6 \\ y=9 \end{array}$$

Feb 8-9:30 AM

The sum of the ages of Cian and Luke is 43. Luke's age is nine less than three times Cian's age.

Feb 8-11:45 AM

The sum of the ages of Cian and Luke is 43. Luke's age is nine less than three times Cian's age.

Let $L =$ Luke's age = 30 years old
 $C =$ Cian's age = 13 years old

$$L + C = 43$$

$$L = 3C - 9$$

$$L + C = 43$$

$$3C - 9 + C = 43$$

$$4C - 9 = 43$$

$$+9 \quad +9$$

$$\frac{4C = 52}{4 \quad 4}$$

$$C = 13$$

$$L + C = 43$$

$$L + 13 = 43$$

$$\frac{-13 \quad -13}{L = 30}$$

Feb 8-11:45 AM

Won has dogs and chickens at his house. He has eight animals total and 22 legs altogether. How many dogs and how many chickens does he have?

Feb 8-11:48 AM

Won has dogs and chickens at his house. He has eight animals total and 22 legs altogether. How many dogs and how many chickens does he have?

Let $d = \# \text{ of dogs} = 3$
 $c = \# \text{ of chickens} = 5$

$$\begin{cases} d + c = 8 \\ 4d + 2c = 22 \end{cases}$$

$$\begin{array}{r} d + c = 8 \\ 3 + c = 8 \\ \underline{-3} \quad \underline{-3} \\ c = 5 \end{array}$$

$$\begin{array}{r} -2d - 2c = 16 \\ 4d + 2c = 22 \\ \hline 2d = 6 \\ \underline{2} \quad \underline{2} \\ d = 3 \end{array}$$

Feb 8-11:48 AM

Mrs. McKenna has \$2.15 in nickels and quarters. She has one more nickel than quarters. How many of each kind does she have?

Feb 8-11:49 AM

Mrs. McKenna has \$2.15 in nickels and quarters. She has one more nickel than quarters. How many of each kind does she have?

Let $n = \# \text{ of nickels} = 8$
 $q = \# \text{ of quarters} = 7$

$$.05n + .25q = 2.15$$

$$n = q + 1$$

$$.05n + .25q = 2.15$$

$$.05(q+1) + .25q = 2.15$$

$$.05q + .05 + .25q = 2.15$$

$$.30q + .05 = 2.15$$

$$\begin{array}{r} .30q + .05 = 2.15 \\ - .05 \quad - .05 \\ \hline .30q = 2.10 \\ \frac{.30}{.30} = \frac{2.10}{.30} \\ q = 7 \end{array}$$

$$.30q = 2.10$$

$$\frac{.30}{.30} = \frac{2.10}{.30}$$

$$q = 7$$

$$n = q + 1$$

$$n = 7 + 1$$

$$n = 8$$

Feb 8-11:49 AM

The larger of two numbers is four more than the smaller number. Twice the smaller number is the same as one less than the larger number. Find both numbers.

Feb 8-11:51 AM

The larger of two numbers is four more than the smaller number. Twice the smaller number is the same as one less than the larger number. Find both numbers.

Let $x = \text{larger} = 7$
 $y = \text{smaller} = 3$

$$x = y + 4$$

$$2y = x - 1$$

$$2y = y + 4 - 1$$

$$2y = y + 3$$

$$\begin{array}{r} -y \\ -y \\ \hline y = 3 \end{array}$$

$$x = y + 4$$

$$x = 3 + 4$$

$$x = 7$$

Feb 8-11:51 AM

Ms. Lochner has \$2.70 in her purse in dimes and quarters. The number of dimes is twice the number of quarters.

Feb 8-11:54 AM

Ms. Lochner has \$2.70 in her purse in dimes and quarters. The number of dimes is twice the number of quarters.

Let $d = \#$ of dimes = 12
 $q = \#$ of quarters = 6

$$.10d + .25q = 2.70$$

$$.10(2q) + .25q = 2.70$$

$$.2q + .25q = 2.70$$

$$\frac{.45q}{.45} = \frac{2.70}{.45}$$

$$q = 6$$

$d = 2q$
 $d = 2(6)$
 $d = 12$

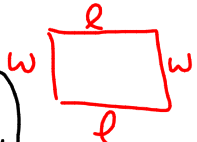
Feb 8-11:54 AM

The perimeter of a rectangle is 26 feet. The length is three more than the width. Find the dimensions.

Feb 8-12:01 PM

The perimeter of a rectangle is 26 feet. The length is three more than the width. Find the dimensions.

Let $l = \text{length} = 8\text{ft}$
 $w = \text{width} = 5\text{ft}$



* $2l + 2w = 26$
 $l = w + 3$

$$2l + 2w = 26$$

$$2(w + 3) + 2w = 26$$

$$2w + 6 + 2w = 26$$

$$4w + 6 = 26$$

$$\begin{array}{r} 4w + 6 = 26 \\ -6 \quad -6 \\ \hline 4w = 20 \\ \frac{4}{4} \quad \frac{4}{4} \\ w = 5 \end{array}$$

$l = w + 3$
 $l = 5 + 3$
 $l = 8$

Feb 8-12:01 PM



Feb 8-12:35 PM