Solving Word Problems

Steps to remember...

1. _____
2. _____
3. _____
4. _____

1. You want to buy a bouquet of roses and a vase for your girlfriend. The roses are sold separately at $1.25 per rose. The vase costs $12. If you only bring $27 to the flower store, write and solve an equation to find how many roses you can buy.

2. Mary is in college and wants to call her mother. Because it is a long distance call, Mary's cell phone service charges her $1.75 for the connection and then $0.35 per minute. Mary is only willing to spend $9 on the call. Write an equation and solve to find the number of minutes Mary can talk with her mother on the phone.

3. Jimmy decides he wants to begin his own lawn mowing business. He invests $500 in a brand new lawn mower and plans to charge $25 per lawn. How many lawns will Jimmy have to mow to make a profit of $200 for his new business?

4. In a catalog, tulips cost $0.75 each and shipping costs are $3.00. Write and solve an equation to determine the number of tulips that you can order for $21.

5. To mail a first class letter, the U.S. Postal Service charges $.34 for the first ounce and $.21 for *each* additional ounce. It costs $1.18 to mail your letter. How many *total* ounces does your letter weigh?

6. Your cell phone costs $45 a month, and then you are charged $0.25 per minute. If your total bill for the month of October is $62.50, how many minutes did you talk for in October?

For Some of These You Will Need To _____ ___ _____

1. Brennan and Dan want to build a fence around their rectangular yard. The perimeter of the yard is 36 yards. If the length of the yard is 3 yards more than twice its width, what is the length and width of the garden?

2. The width of a rectangle is 2 cm less than its length. The perimeter of the rectangle is 16 cm. Write and solve an equation to find the dimensions of the rectangle.

Consecutive Integers: _____

3. The sum of the ages of Brianna, Skylar, and De'Andre is three consecutive integers. If the sum of their ages is 42, find that ages of each person.

4. The sum of three consecutive even integers is 42. Find the integers.

Solving Word Problems

Steps to remember...

1. Let Statement
2. Write Equation
3. Solve Equation
4. Answer the Question LABEL

1. You want to buy a bouquet of roses and a vase for your girlfriend. The roses are sold separately at $1.25 per rose. The vase costs $12. If you only bring $27 to the flower store, write and solve an equation to find how many roses you can buy.

Roses Vase

$1.25 \cdot r + 12 = 27$

$-12 \quad -12$

$\frac{1.25r}{1.25} = \frac{15}{1.25}$

$r = 12$

Let r = roses you can buy

You can buy 12 roses

2. Mary is in college and wants to call her mother. Because it is a long distance call, Mary's cell phone service charges her $1.75 for the connection and then $0.35 per minute. Mary is only willing to spend $9 on the call. Write an equation and solve to find the number of minutes Mary can talk with her mother on the phone.

Let m = minutes she can talk on phone

$1.75 + 0.35 \cdot m = 9$

$-1.75 \quad -1.75$

$\frac{0.35m}{0.35} = \frac{7.25}{0.35}$

$m = 20.7$

Mary can talk for 20 min

3. Jimmy decides he wants to begin his own lawn mowing business. He invests $500 in a brand new lawn mower and plans to charge $25 per lawn. How many lawns will Jimmy have to mow to make a profit of $200 for his new business?

Let L = lawns mowed to earn this profit

$-500 + 25 \cdot L = 200$

$+500 \quad +500$

$\frac{25 \cdot L}{25} = \frac{700}{25}$

$L = 28$

Jimmy will mow 28 lawns

4. In a catalog, tulips cost $0.75 each and shipping costs are $3.00. Write and solve an equation to determine the number of tulips that you can order for $21.

$0.75 \cdot T + 3.00 = 21$

$-3.00 \quad -3.00$

$\frac{0.75T}{0.75} = \frac{18}{0.75}$

$T = 24$

Let T = # of tulips you can order

You can order 24 Tulips

5. To mail a first class letter, the U.S. Postal Service charges $.34 for the first ounce and $.21 for *each* additional ounce. It costs $1.18 to mail your letter. How many *total* ounces does your letter weigh?

$0.34 + 0.21n = 1.18$

$-0.34 \quad -0.34$

$\frac{0.21n}{0.21} = \frac{0.84}{0.21}$

$n = 4$

Let n = additional ounces

The letter weighs 5 total ounces

6. Your cell phone costs $45 a month, and then you are charged $0.25 per minute. If your total bill for the month of October is $62.50, how many minutes did you talk for in October?

$45 + 0.25 \cdot m = 62.50$

$-45 \quad -45.00$

$\frac{0.25m}{0.25} = \frac{17.50}{0.25}$

$m = 70$

Let m = minutes you spent talking on phone in October

You talked for 70 minutes in October

For Some of These You Will Need To Draw a Picture

1. Brennan and Dan want to build a fence around their rectangular yard. The perimeter of the yard is 36 yards. If the length of the yard is 3 yards more than twice its width, what is the length and width of the garden?

$w + 2w + 3 + w + 2w + 3 = 36$

$6w + 6 = 36$

$-6 \quad -6$

$\frac{6w}{6} = \frac{30}{6}$

$w = 5$

Width w | Length $2w+3$

The width is 5 yards

2. The width of a rectangle is 2 cm less than its length. The perimeter of the rectangle is 16 cm. Write and solve an equation to find the dimensions of the rectangle.

$L - 2 + L + L - 2 + L = 16$

$4L - 4 = 16$

$+4 \quad +4$

$\frac{4L}{4} = \frac{20}{4}$

$L = 5$

Width $L-2$ | Length L

Length = 5 cm

Width = $5 - 2 = 3$ cm

Consecutive Integers: Ex. 5, 6, 7

3. The sum of the ages of Brianna, Skylar, and De'Andre is three consecutive integers. If the sum of their ages is 42, find that ages of each person.

$x + x + 1 + x + 2 = 42$

$3x + 3 = 42$

$-3 \quad -3$

$\frac{3x}{3} = \frac{39}{3}$

$x = 13$

Let x = Brianna's Age

Let $x+1$ = Skylar's Age

Let $x+2$ = De'Andre's Age

Brianna = 13

Skylar = 14

De'Andre = 15

4. The sum of three consecutive even integers is 42. Find the integers.

$x + x + 2 + x + 4 = 42$

$3x + 6 = 42$

$-6 \quad -6$

$\frac{3x}{3} = \frac{36}{3}$

$x = 12$

Let x = 1st even int.

Let $x+2$ = 2nd even int.

Let $x+4$ = 3rd even int

12, 14, 16