Math 0406-Learning Outcome:
Solve Application Problems using linear equations

Practice Problems:

Define a variable and write a linear equation in order to solve the following problems.

1. An optical engineer's consulting fee was $600. This included $80 for supplies and $65 for each hour of consultation. Find the number of hours of consultation.

2. The perimeter of a rectangle is 50 m. The width of the rectangle is 5 m less than the length. Find the length and width of the rectangle.

3. Four less than three times a number is five. Find the number.

4. The total purchase price, including finance charges for a lap-top computer was $3150. A down payment of $450 was made. The remainder was paid in 12 monthly payments. Find the monthly payment.

5. Find two consecutive even integers such that five times the first equals ten more than three times the second.

6. The length of the sides of a triangle are consecutive odd integers. The perimeter is 117 cm. Find the lengths of the sides.

7. A plumber charged $450. This included $120 for materials and $22 for each hour of labor. Find the number of hours of labor.

8. Due to depreciation the value of a car now is $5,700. This is three-fifths of its original value. Find the original value.

9. The difference between four and twice a number is ten. Find the number.

10. A cement contractor charges $45 for travel plus $18 for each yard of cement. How many yards can be purchased for $261?

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Solutions:

1. 8 hours
2. 15 meters is the length; 10 meters is the width
3. 3
4. $225
5. 8 and 10
6. 37,39,41
7. 15 hours
8. $9500
9. -3
10. 12 yards