Word Problems Practice

Name _____

1. The sum of three consecutive even numbers is 66. What is the smallest of these numbers?

$a + a+2 + a+4 = 66$

$3a + 6 = 66$

$-6 \quad -6$

$\frac{3a}{3} = \frac{60}{3}$

$a = 20$

2. The sum of three consecutive **odd** numbers is 63. What is the smallest of these numbers?

$a + a+2 + a+4 = 63$

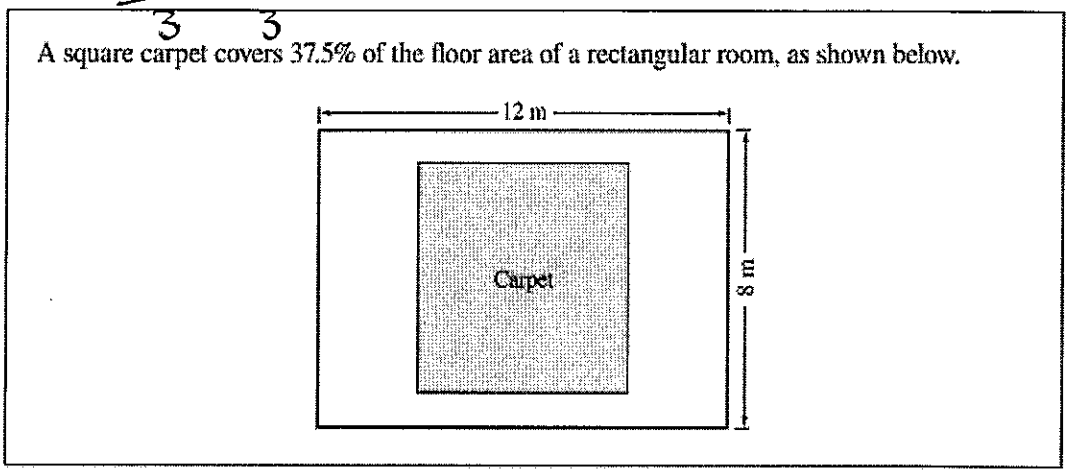
$3a + 6 = 63$

$-6 \quad -6$

$\frac{3a}{3} = \frac{57}{3}$

$a = 19$

3. A square carpet covers 37.5% of the floor area of a rectangular room, as shown below.



What is the side length of the carpet above?

$12\,m \times 8\,m = 96\,m^2$

37.5% of $96 = 0.375 \times 96 = 36\,m^2$

$\sqrt{36\,m^2} = 6\,m$

4. Sam has a total of 55 coins. They are made up of nickels and quarters. If the total value of coins is $6.55. Determine the number of nickels and quarters that Sam has.

$n+q=55$ $\quad 55-q=n$

$5n+25q=655$

$5(55-q)+25q=655$

$275-5q+25q=655$

$275+20q=655$

$-275 \quad -275$

$\frac{20q}{20}=\frac{380}{20}$

$q=19 \quad n=36$

5.

> Tara, Jennifer, and Mindy donated some money to a charity. Jennifer donated twice as much as Tara, and Mindy donated $10 less than Jennifer.

If the total amount of money donated was $50, how much did Tara donate?

$T+2T+2T-10=50$

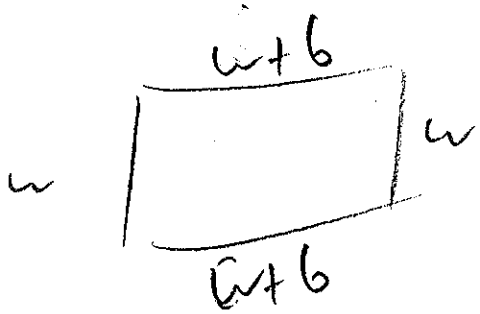
$5T-10=50$

$+10 \quad +10$

$5T=60$

$T=12$

6. The length of a rectangular field is six more than the width. The perimeter is 42 m. What are the dimensions of the field?



$w+w+6+w+w+6=42$

$4w+12=42$

$\frac{4w}{4}=\frac{30}{4}$

$w=7.5$

Word Problems Practice

7. Two numbers total up to 28. If you double the first number and four times the second number your new total is 92. What are the two numbers?

$x + y = 28 \quad x = 28 - y$

$2x + 4y = 92$

$2(28-y) + 4y = 92$

$56 - 2y + 4y = 92$

$56 + 2y = 92$

$-56 \quad -56$

$2y = 36$

$x = 10$

$y = 18$

8. One number is 5 times greater than another. If you subtract 10 from both numbers their sum will be 118. What are the two numbers?

$x = 5y$

$x - 10 + y - 10 = 118$

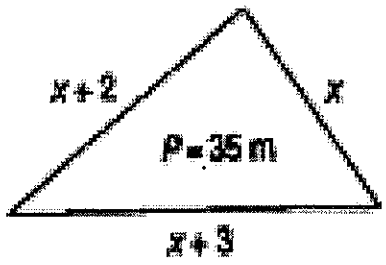
$5y - 10 + y - 10 = 118$

$6y - 20 = 118$

$6y = 138$

$y = 23$

9.

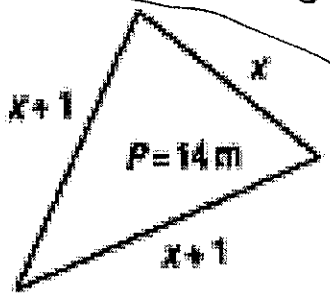


$3x + 5 = 35$

$3x = 30$

$x = 10$

10.



$3x + 2 = 14$

$3x = 12$

$x = 4$

11. A collection of 33 coins, consisting of nickels, dimes, and quarters has a value of $3.30. If there are three times as many nickels as quarters, and one-half as many dimes as nickels, how many coins of each kind are there?

$n + d + q = 33$ coins

$5n + 10d + 25q = 330¢$

$3q = n \quad \frac{n}{2} = d$

$q = \frac{n}{3}$

$5n + 10\left(\frac{n}{2}\right) + 25\left(\frac{n}{3}\right) = 330$

$5n + \frac{10n}{2} + \frac{25n}{3} = 330$

$\frac{30n}{6} + \frac{30n}{6} + \frac{50n}{6} = \frac{1980}{6}$

$30n + 30n + 50n = 1980$

$\frac{110n}{110} = \frac{1980}{110}$

$n = 18$

$d = 9$

$q = 6$