

SUPPLEMENTARY SHEET 3
PERIMETER and COIN PROBLEMS
 Professor Howard Sorkin hsorkin1@gmail.com

(Note: You must know how to write a correct algebraic equation for each of the problems below. If you do not write a correct algebraic equation for any of the Word Problems given to you on your Test you will not get credit for your problem even if you have the correct answer!)

PERIMETER PROBLEMS:

1. The length of a rectangle is 6 times its width. The perimeter of the rectangle is 98 feet. Find the length and width of the rectangle.
2. The length of a rectangle is 3 times its width. The perimeter of the rectangle is 32 feet. What are the rectangle's length and width?
3. The length of a rectangle is 4 times its width. The perimeter of the rectangle is 90 feet. Find the length and width of the rectangle.
4. An equilateral triangle is a triangle in which all the sides are equal. If the perimeter of an equilateral triangle is 27 inches, how large is each side of the triangle?
5. An isosceles triangle is a triangle in which two of the sides are equal. If each of the equal sides of an isosceles triangle is 5 times the third side and the perimeter of the triangle is 121 inches, how many inches is each of the sides of the triangle?
6. The shorter side of a triangle is 5 inches less than the medium size side. The larger side is 12 inches more than the medium size side. If the perimeter of the triangle is 40 inches, find the size of each side of the triangle.
7. The lengths of the sides of a triangle are represented by three consecutive odd integers. If the perimeter of the triangle is 75 feet, find the lengths of its sides.
8. The length of a rectangle is 4 inches more than its width. The perimeter is 96 inches. Find the length and width of the rectangle.
9. If length of a rectangle exceeds the width by 9 inches and the perimeter is 86 inches, what are the length and width of the rectangle?
10. The perimeter of a rectangle is 102 inches. If the length of the rectangle exceeds the width by 5 inches, find the length and width of the rectangle.
11. The width of a rectangle is 4 inches less than its length. The perimeter is 112 inches. Find the length and the width of the rectangle.
12. The perimeter of a rectangular plot of land is 312 feet. If the length is 6 feet more than 5 times the width, what are the length and width?
13. The perimeter of a flat panel TV screen is 150 inches. Find the length and width of the screen if the length is 5 inches less than three times the width.
14. The perimeter of a rectangular projection screen is 272 inches. If the length of the screen exceeds twice its width by 10 inches, what is the screen's length and width?

Answers:

1. L = 42 ft., W = 7 ft.	2. L = 12 ft., W = 4 ft.	3. L = 36 ft., W = 9 ft.	4. 9 in.
5. 11 in., 55 in., 55 in.	6. 6 in., 11 in., 23 in.	7. 23 ft., 25 ft., 27 ft.	8. L = 26 in., W = 22 in.
9. L = 26 in., W = 17 in.	10. L = 28 in., W = 23 in.	11. L = 30 in., W = 26 in.	12. L = 131 ft., W = 25 ft.
13. L = 55 in., W = 20 in.	14. L = 94 in., W = 42 in.		

COIN PROBLEMS

1. A box contains 5 times as many dimes as nickels. The total amount in the box is \$2.20. How many coins of each type are in the box?
2. In Ken's pocket there are 3 times as many quarters as dimes. In all he has \$1.70 in coins. How many coins of each type does he have?
3. There are twice as many nickels as pennies and 5 times as many dimes as pennies in Joan's drawer. In all she has \$1.22. How many coins of each type does she have?
4. Monica has three times as many nickels as pennies and twice as many quarters as nickels. In all she has \$3.32. How many coins of each type does she have?
5. Mitch put \$4.55 in dimes and quarters on his desk. He has 7 more quarters than dimes. Find the number he has of each coin.
6. If Sue has \$1.45 in nickels and dimes, and the number of dimes exceeds the number of nickels by 4, how many nickels and how many dimes does she have?
7. Constance has \$2.80 in quarters and dimes. The number of quarters exceeds three times the number of dimes by 1. Find the number she has of each kind.
8. Wanda gave \$5.30 in nickels, quarters, and dimes to her little daughter. The number of dimes exceeded the number of nickels by 3, and the number of quarters was 20 less than the number of nickels. Find the number of each kind of coin she gave to her daughter.
9. David emptied his pockets and found that he had 30 coins worth \$4.80. He only had quarters and dimes. How many coins of each kind did David have?
10. Liz received change of \$1.15 in nickels and dimes at the supermarket. The cashier gave her back 20 coins. How many of each kind of coin did she receive?
11. Carlos found a paper bag containing \$1.17 in pennies, nickels, and dimes. The bag contained a total of 25 coins. If there are twice as many nickels as pennies, how many of each kind of coin did Carlos find?
12. Jennifer had 35 coins which consisted of nickels, dimes, and quarters. The coins were worth \$5.55. The number of dimes exceeded the number of nickels by 5. How many nickels, dimes and quarters did she have?

Answers:

1. 4 N, 20 D	2. 2 D, 6 Q	3. 2 P, 4 N, 10 D	4. 2 P, 6 N, 12 Q	5. 8 D, 15 Q	6. 7 N, 11 D
7. 3 D, 10 Q	8. 25 N, 28 D, 5 Q	9. 18 D, 12 Q	10. 17 N, 3 D	11. 7 P, 14 N, 4 D	12. 7 N, 12 D, 16 Q