

UNIT TEST **Lessons 12–23** (100 points possible)



I. Evaluate. (5 points each)

1.  $5^2 \cdot 5^3$

2.  $(-3)^3$

3.  $(2^{-2})^3$

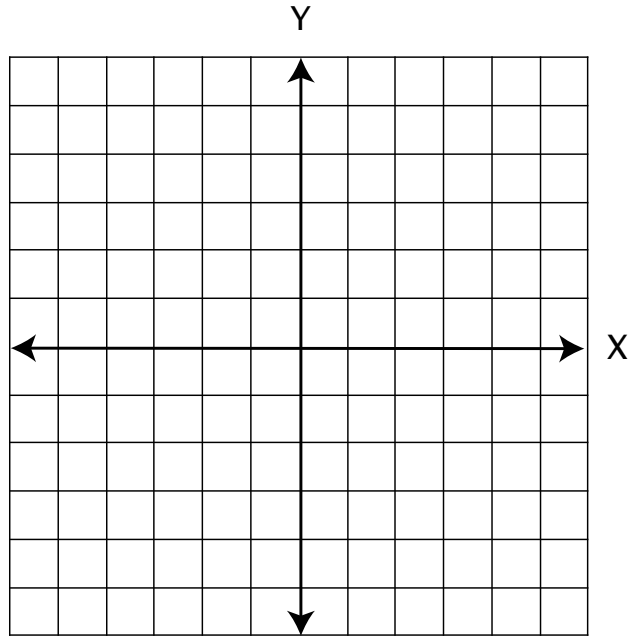
4.  $3^{10} \div 3^2$

5.  $A^2B^3AB^4$

6.  $(3X + 2)(X - 1)$

II. Sally has 16 coins. All are either nickels or dimes. The value of her coins is \$1.10.  
How many dimes does she have? (10 points)

- III. Solve the following problems using graphing, substitution, or elimination. Use a different method for each problem. Show your work and label the method used. Use graph if desired. (10 points each)



1.  $2X + 1 = Y$   
 $2Y = 6$

2.  $Y - 3 = X + 2$   
 $2X - 1 = Y$

IV. Find three consecutive odd integers where two times the first integer, plus one, equals the third integer. (8 points)

V. Factor. (8 points each)

1.  $2X^2 + 28$

2.  $2X^2 + 8X + 6$

3.  $3X^2 + 19X + 20$

VI. Graph the inequality:  $2Y \leq 4X - 8$ . (8 points)

