

## Review Lessons 4.6 & 4.7 Worksheet

Name: \_\_\_\_\_

Solve the equation.

1.)  $x^2 = -40$

2.)  $4x^2 = -1024$

3.)  $\frac{1}{2}x^2 - 15 = -55$

4.)  $3x^2 + 18 = 3$

5.)  $(x + 2)^2 = -27$

6.)  $-2(x - 5)^2 = 36$

Write the expression as a complex number in standard form.

7.)  $(9 + 8i) + (8 - 9i)$

8.)  $(8 + 20i) - (-8 + 12i)$

9.)  $(-1 + i) - (7 - 5i)$

10.)  $4i(3 - 2i)$

11.)  $(5 + 3i)(4 - 4i)$

12.)  $(7 - i)(-3 - 4i)$

13.)  $\frac{7i}{8+i}$

14.)  $\frac{2-2i}{4-3i}$

15.)  $\frac{6-4i}{2-i}$

**Use the properties of exponents to write the complex number in standard form.**

16.)  $13 + i^{16}$

17.)  $-9 + i^{21}$

18.)  $17 - 5i^{54}$

19.)  $6 - 3i^{45}$

**Solve the equation by finding square roots.**

20.)  $x^2 - 6x + 9 = 25$

21.)  $x^2 - 12x + 36 = 48$

22.)  $2x^2 + 16x + 32 = 14$

**Solve the equation by completing the square.**

23.)  $x^2 - 10x = -10$

24.)  $x^2 + 6x + 10 = 0$

25.)  $3x^2 + 36x = -42$

26.)  $3x^2 + 6x + 9 = 0$

**Write the quadratic function in vertex form. Then identify the vertex.**

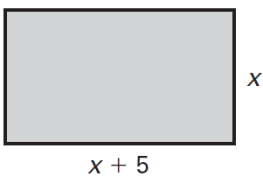
27.)  $y = x^2 + 14x + 11$

28.)  $y = x^2 - 8x + 10$

29.)  $y = x^2 - 10x + 3$

**Find the value of  $x$ .**

30.) Area of rectangle =  $84 \text{ units}^2$



31.) Area of triangle =  $20 \text{ units}^2$

