Powell High School   Name _____

Honors Algebra II

Summer 2020 Assignment

Directions: Use pencil to complete all problems. Show all steps. This assignment will be due on the first day of class, and will be entered as a homework assignment.

Find the next three terms in each pattern.

1) $-2, 4, -8, 16, -32,$ ____, ____, ____

2) $-2, -\frac{5}{2}, -3, -\frac{7}{2}, -4,$ ____, ____, ____

3) $10, 12, 15, 19, 24,$ ____, ____, ____

4) $3, 1, \frac{1}{3}, \frac{1}{9},$ ____, ____, ____

Simplify each square root. Leave your answer in simplest radical form. Your answers should contain no decimals.

5) $\sqrt{32}$

6) $\sqrt{196}$

7) $\sqrt{8}$

8) $\sqrt{294}$

Use the quadratic formula to solve the following.

9) $4x^2 - 9x + 4 = 0$

10) $2x^2 + 11x - 13 = 0$

11) $3x^2 - 5x - 37 = -9$

12) $2x^2 - 6x = -4$

State the domain and range for each graph.

13)

14)

15)

16)

17)

18)