Name: _____ Date: _____ Period:_____

Solve the following equations by factoring and using the multiplication property of zero

1) $n^2 + 7n + 15 = 5$

2) $6n^2 - 18n - 18 = 6$

3) $-2v^2 - v + 12 = -3v^2 + 6v$

Write the equation of the parabola with the given x-intercepts

4) 4 and -3

6) ½ and 5

8) -¾ and ⅔

5) 6 and 0

7) 9

Use the discriminant to find the number of roots for the following parabolas

9) $-2x^2 - 8x - 14 = -6$

11) $-7n^2 + 16n = 8n$

10) $9n^2 - 3n - 8 = -10$

12) $2x^2 = 10x + 5$

Find the coordinates of the vertex for the following parabolas

13) $y = x^2 + 16x + 64$

15) $y = -x^2 + 18x - 75$

14) $y = 2x^2 - 4x - 2$

16) $y = -3x^2 + 12x - 10$

Solve the following equations by using the quadratic formula

17) $v^2 + 2v - 8 = 0$

18) $2a^2 - a - 13 = 2$

19) $4x^2 + 4x - 8 = 1$