4.4 Quadratic Formula

1) When would you solve by using the quadratic formula?

2) What is one benefit of using the quadratic formula?

Solve each equation with the quadratic formula.

3) $4n^2 - 12 = -8n$

4) $2b^2 - 8 = 0$

5) $5n^2 = 116 + 9n$

6) $5x^2 - 2 = 8x$

7) $5x^2 - 7x = 16$

8) $6a^2 - 12 = 2a$

9) $6x^2 + 12x = -11$

10) $4x^2 = -3$

11) When you are solving, when can you tell if you'll have rational, irrational, or imaginar solutions?

12) When do you get imaginary solutions?

Find the value of c that completes the square.

13) $x^2 - 16x + c$

14) $x^2 + 14x + c$

15) $x^2 + 34x + c$

16) $y^2 - 4y + c$

Solve each equation using whatever strategy you'd like.

17) $x^2 + 6 = -7x$

18) $p^2 = 6p$

19) $10m^2 - 29m = -21$

20) $3r^2 - 2 = r$

21) $a^2 - 18a + 52 = 7$

22) $x^2 + 18x + 90 = 5$

23) $n^2 - 14n - 70 = 3$

24) $b^2 - 10b + 60 = 3$

25) $10a^2 + 11 = 5a$

26) $3v^2 - 60 = -11v$

27) What are the three strategies to solving quadratics?

28) Out of the strategies you listed above, make a list in order of easiest to hardest for YOU to use.