

3-2 Classwork

Find the discriminant of each quadratic equation then state the number and type of solutions.

1) $3x^2 - 8x + 9 = 0$

2) $-8x^2 + 9x + 6 = 0$

3) $5x^2 + 6x + 1 = 0$

4) $-n^2 + 5n - 10 = 0$

Solve each equation. Use the discriminant to decide whether to factor or use the quadratic formula

5) $b^2 - 4b + 3 = 0$

6) $x^2 + 9x + 8 = 0$

7) $7r^2 + 5r - 7 = 0$

8) $5a^2 - 2a - 19 = 0$

$$9) \ 2x^2 - 3x - 5 = 0$$

$$10) \ 7a^2 - 29a - 30 = 0$$

$$11) \ 2x^2 + 2x + 1 = 0$$

$$12) \ k^2 + 3k + 3 = 0$$

Factor each completely.

$$13) \ 4x^2 - 25$$

$$14) \ 25n^2 + 16$$

$$15) \ 16 - k^2$$

$$16) \ n^2 - 9$$

$$17) \ x^2 - 1$$

$$18) \ 9x^2 + 25$$