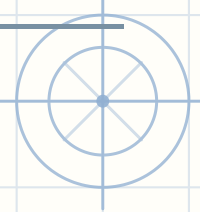


How many real solutions — Both forms

Name: _____

Date: _____



How many real solutions does each equation have? Circle one.

1 $4x^2 - 13x - 56 = 0$ Two / One / None

2 $x^2 - 9x + 79 = 0$ Two / One / None

3 $x^2 - 10x + 25 = 0$ Two / One / None

4 $5x^2 - 13x + 4 = 0$ Two / One / None

5 $2x^2 - 12x + 18 = 0$ Two / One / None

6 $5x^2 - 7x + 70 = 0$ Two / One / None

7 $x^2 - 16x - 21 = 0$ Two / One / None

8 $x^2 - 4x + 4 = 0$ Two / One / None

9 $x^2 - 4x + 48 = 0$ Two / One / None

10 $4x^2 + 4x + 1 = 0$ Two / One / None



How many real solutions · Both forms — Answer key

1. $4x^2 - 13x - 56 = 0$: $-13^2 - 4 \times 4 \times -56 = 169 - -896 = 1065 \rightarrow$ Two

5. $2x^2 - 12x + 18 = 0$: $-12^2 - 4 \times 2 \times 18 = 144 - 144 = 0 \rightarrow$ One

9. $x^2 - 4x + 48 = 0$: $-4^2 - 4 \times 1 \times 48 = 16 - 192 = -176 \rightarrow$ None

2. $x^2 - 9x + 79 = 0$: $-9^2 - 4 \times 1 \times 79 = 81 - 316 = -235 \rightarrow$ None

6. $5x^2 - 7x + 70 = 0$: $-7^2 - 4 \times 5 \times 70 = 49 - 1400 = -1351 \rightarrow$ None

10. $4x^2 + 4x + 1 = 0$: $4^2 - 4 \times 4 \times 1 = 16 - 16 = 0 \rightarrow$ One

3. $x^2 - 10x + 25 = 0$: $-10^2 - 4 \times 1 \times 25 = 100 - 100 = 0 \rightarrow$ One

7. $x^2 - 16x - 21 = 0$: $-16^2 - 4 \times 1 \times -21 = 256 - -84 = 340 \rightarrow$ Two

4. $5x^2 - 13x + 4 = 0$: $-13^2 - 4 \times 5 \times 4 = 169 - 80 = 89 \rightarrow$ Two

8. $x^2 - 4x + 4 = 0$: $-4^2 - 4 \times 1 \times 4 = 16 - 16 = 0 \rightarrow$ One