Solve by square roots — **Square and shifted forms**

Name: _____ Date: _____

Solve each equation by taking square roots.

1. $4x^2 = 324$ $x =$ ___ or $x =$ ___

2. $(x + 6)^2 = 4$ $x =$ ___ or $x =$ ___

3. $x^2 = 100$ $x =$ _____ or $x =$ _____

4. $(x - 5)^2 = 36$ $x =$ ___ or $x =$ ___

5. $3x^2 = 363$ $x =$ _____ or $x =$ _____

6. $(x + 4)^2 = 16$ $x =$ ___ or $x =$ ___

7. $(x + 8)^2 = 100$ $x =$ _____ or $x =$ _____

8. $(x + 9)^2 = 49$ $x =$ _____ or $x =$ _____

9. $x^2 = 81$ $x =$ ___ or $x =$ ___

10. $x^2 = 25$ $x =$ ___ or $x =$ ___

Solve by square roots · Square and shifted forms — Answer key

1. $4x^2 = 324 \rightarrow x = -9$ or $x = 9$

2. $(x + 6)^2 = 4 \rightarrow x = -8$ or $x = -4$

3. $x^2 = 100 \rightarrow x = -10$ or $x = 10$

4. $(x - 5)^2 = 36 \rightarrow x = -1$ or $x = 11$

5. $3x^2 = 363 \rightarrow x = -11$ or $x = 11$

6. $(x + 4)^2 = 16 \rightarrow x = -8$ or $x = 0$

7. $(x + 8)^2 = 100 \rightarrow x = -18$ or $x = 2$

8. $(x + 9)^2 = 49 \rightarrow x = -16$ or $x = -2$

9. $x^2 = 81 \rightarrow x = -9$ or $x = 9$

10. $x^2 = 25 \rightarrow x = -5$ or $x = 5$