

Solving Quadratic Equations by Factoring**Solve each equation by factoring.**

1. $x^2 - 4x - 12 = 0$

2. $y^2 - 16y + 64 = 0$

3. $n^2 + 25 = 10n$

4. $9z = 10z^2$

5. $7y^2 = 4y$

6. $c^2 = 2c + 99$

7. $5w^2 - 35w + 60 = 0$

8. $3d^2 + 24d + 45 = 0$

9. $15v^2 + 19v + 6 = 0$

10. $4j^2 + 6 = 11j$

11. $36k^2 = 25$

12. $12m^3 - 8m^2 = 15m$

13. $6e^3 = 5e^2 + 6e$

14. $9 = 64p^2$

Solve. Use any strategy.

15. At a cattle pen at the county fair, Jody counted 65 heads and 236 legs. How many cattle and how many workers were there in the pen at that time?

16. Replace each letter with a whole number so that the addition problem at the right is correct. Each letter represents a different number. (There are four possible answers.)

$$\begin{array}{r}
 \text{A B C D} \\
 + \text{D C B A} \\
 \hline
 5 \ 5 \ 5 \ 5
 \end{array}$$