ALERT! Solving by factoring only works if the polynomial is actually factorable. We will be using the zero product property so our equations are factorable and equal to zero. This is a major difference between it and our other methods. The Quadrus method and Quadratic Formula method always work. So that being said - Every equation on this worksheet can be solved by factoring but definitely do not think that means every equation can be solved by factoring.

Despite the weakness of not always working, the advantage of it is when you do have an equation that can be solved by factoring it is often the fastest way to solve that particular equation.

You should already know how to factor before attempting these problems. If you do not know how to factor then go check out our factoring lesson.

Solve for the variable:

1. $x^2 + 5x - 14 = 0$
2. $k^2 - 3k - 18 = 0$
3. $a^2 + 2a - 2 = 22$
4. $p^2 + 9p + 5 = -13$
5. $x^2 + 25 = 10x$
6. $t^2 + 36 = 12t$
7. $7r^2 - 42r = -56$
8. $2n^2 + 14n + 24 = 0$
9. $12r^2 + 11r + 13 = -2r + 10$
10. $5x^2 + 15x - 20 = 0$