

Factoring Polynomials Worksheet Answer Key

We're Giving the Order to Pull Out

Factor the following polynomials.

1. $y^2 + 3y$

$$y(y + 3)$$

2. $4xy - 3xy^2 + 27x^2y$

$$xy(4 - 3y + 27x)$$

3. $-6x^2 + 12x - 6$

$$-6(x - 1)^2$$

4. $9xy - 27xy^3 + 54x^2y$

$$9xy(1 + 6x - 3y^2)$$

5. $25x^2 - y^2$

$$(5x - y)(5x + y)$$

6. $36y^4 - 6x^2$

$$6(6y^2 + x)(6y^2 - x)$$

7. $24x^2 - 168x + 296$

$$6(2x - 7)^2$$

8. $x^2 + 7x + 10$

$$(x + 5)(x + 2)$$

9. $y^2 + 9y + 20$

$$(y + 5)(y + 4)$$

10. $4x^2 + 36x + 80$

$$4(x + 4)(x + 5)$$

©2012 Shmoop University, Inc. All rights reserved. For classroom use only. Want to print this out for your classroom? Go for it. All other reproduction and distribution is prohibited.

<http://www.shmoop.com/algebra/>
Shmoop will make you a better lover (of literature, math, life...)