

ACT COMPASS Preparation Worksheet

Algebra: Substitution

Evaluate

1. $a^2b = 12$ when $a = -2$ $b = 3$
2. $a - bc = 14$ when $a = -2$ $b = -4$ $c = 4$
3. $(b + d)^2 = 49$ when $b = 3$ $d = 4$
4. $bc^3 - ad = -184$ when $a = -2$ $b = 3$ $c = -4$ $d = 4$
5. $-7(z + 4) - 7 = -56$ when $z = 3$
6. $(-3b - 8)(b + 6) = 7$ when $b = -5$
7. $2y(cy - 4) - c - 10 = 82$ when $y = 4$ $c = 4$
8. $10x + 4 = 14$ when $x = 1$
9. $y = 4x - 3$ when $x = -1$ $y = -7$
10. $y = x^2 - 5x + 7$ when $x = -2$ $y = 21$
11. $y = 3x^2 - 12x + 4$ when $x = -2$ $y = 40$
12. $y = 7x^2 + 12$ when $x = 5$ $y = 187$
13. $y = x^4 + 3x^3 - x^2 + 6$ when $x = -3$ $y = -3$
14. $y = 2x^3 - x^2 - 4x + 2$ at $x = -3$ $y = -49$
15. $y = 5x^3 - 2x^2 + 3$ at $x = 4$ $y = 291$