

Factoring – Perfect Square Trinomials Worksheet Answers

Factor :

1. $x^2 - 2x + 1 = (x - 1)(x - 1)$ or $(x - 1)^2$

$$\sqrt{x^2} = x$$

$$\sqrt{1} = 1$$

$$2(x)(1) = 2x$$

2. $a^2 + 6a + 9 = (a + 3)(a + 3)$ or $(a + 3)^2$

$$\sqrt{a^2} = a$$

$$\sqrt{9} = 3$$

$$2(a)(3) = 6a$$

3. $b^2 - 16b + 64 = (b - 8)(b - 8)$ or $(b - 8)^2$

$$\sqrt{b^2} = b$$

$$\sqrt{64} = 8$$

$$2(b)(8) = 16b$$

4. $x^4 + 20x^2 + 100 = (x^2 + 10)(x^2 + 10)$ or $(x^2 + 10)^2$

$$\sqrt{x^4} = x^2$$

$$\sqrt{100} = 10$$

$$2(x^2)(10) = 20x^2$$

5. $16x^2 + 40x + 25 = (4x + 5)(4x + 5)$ or $(4x + 5)^2$

$$\sqrt{16x^2} = 4x$$

$$\sqrt{25} = 5$$

$$2(4x)(5) = 40x$$