

Factoring Special Case Quadratics

© 2013 Kuta Software LLC. All rights reserved.

Factor each completely.

1) $-2v^2 - 7v + 4$

2) $5x^2 + 16x - 16$

3) $5n^2 - 37n + 42$

4) $3a^2 + 13a + 14$

5) $7n^2 - 4n - 20$

6) $3k^2 - 20k - 32$

7) $12v^2 - 51v - 45$

8) $8x^2 - 30x - 8$

9) $4v^2 + 23v + 28$

10) $12a^2 + 34a + 14$

11) $-12m^2 - 33m - 18$

12) $-18b^2 - 123b - 90$

13) $16a^2 + 24a + 9$

14) $25x^2 + 20x + 4$

15) $25n^2 - 4$

16) $25v^2 - 1$

17) $x^2 - 25y^2$

18) $16u^2 - 9v^2$

- 19) You are given a sheet of paper and asked to cut out a rectangular piece with an area of $(4x^2 - 44x + 122)$. The dimensions of the rectangle have a form $(ax + b)$, where a and b are whole integers. Find an expression for the perimeter of the rectangle that is cut out. Find the perimeter if $x = 41$ mm.

- 20) Multi-Step The area of a square is represented by $25z^2 - 40z + 16$.
- What expression represents the length of a side of the square?
 - What expression represents the perimeter of the square?
 - What are the length of a side, the perimeter, and the area of the square when $z = 3$?