Name: _____ Date: _____

Fresh Math

Completing The Square - Medium

Complete the square to write each expression in vertex form.

1. $x^2 - 4x - 3$
2. $x^2 + 4x - 11$
3. $x^2 + 10x + 37$
4. $x^2 + 2x - 2$
5. $x^2 + 12x + 27$
6. $x^2 + 18x + 73$
7. $x^2 + 16x + 57$
8. $x^2 + 2x - 9$
9. $x^2 - 6x + 10$
10. $x^2 + 10x + 11$

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Completing The Square - Medium

Complete the square to write each expression in vertex form.

11. $x^2 + 16x + 64$

12. $x^2 - 10x + 34$

13. $x^2 - 14x + 58$

14. $x^2 - 6x + 23$

15. $x^2 - 14x + 60$

16. $x^2 - 10x + 19$

17. $x^2 + 8x + 25$

18. $x^2 + 12x + 31$

19. $x^2 - 2x + 8$

20. $x^2 - 18x + 85$

Completing The Square - Medium - Answer Key

1. $x^2 - 4x - 3$
   $(x - 2)^2 - 7$

2. $x^2 + 4x - 11$
   $(x + 2)^2 - 15$

3. $x^2 + 10x + 37$
   $(x + 5)^2 + 12$

4. $x^2 + 2x - 2$
   $(x + 1)^2 - 3$

5. $x^2 + 12x + 27$
   $(x + 6)^2 - 9$

6. $x^2 + 18x + 73$
   $(x + 9)^2 - 8$

7. $x^2 + 16x + 57$
   $(x + 8)^2 - 7$

8. $x^2 + 2x - 9$
   $(x + 1)^2 - 10$

9. $x^2 - 6x + 10$
   $(x - 3)^2 + 1$

10. $x^2 + 10x + 11$
    $(x + 5)^2 - 14$

Completing The Square - Medium - Answer Key

11. $x^2 + 16x + 64$
    $(x + 8)^2$

12. $x^2 - 10x + 34$
    $(x - 5)^2 + 9$

13. $x^2 - 14x + 58$
    $(x - 7)^2 + 9$

14. $x^2 - 6x + 23$
    $(x - 3)^2 + 14$

15. $x^2 - 14x + 60$
    $(x - 7)^2 + 11$

16. $x^2 - 10x + 19$
    $(x - 5)^2 - 6$

17. $x^2 + 8x + 25$
    $(x + 4)^2 + 9$

18. $x^2 + 12x + 31$
    $(x + 6)^2 - 5$

19. $x^2 - 2x + 8$
    $(x - 1)^2 + 7$

20. $x^2 - 18x + 85$
    $(x - 9)^2 + 4$