

SM3 HW #2-2 (Factor Trinomials, lead coefficient is not '1')

Factor each completely.

1) $7r^2 + 17r - 12$

2) $7x^2 - 69x + 54$

3) $2n^2 - 23n + 45$

4) $3x^2 + 8x + 4$

5) $7x^2 - 67x - 30$

6) $7k^2 - 5k - 18$

7) $6x^2 - 55x + 9$

8) $6b^2 - 19b + 14$

9) $9r^2 - 34r - 8$

10) $9x^2 - 8x - 20$

11) $x^2 + 10$

12) $m^2 - 11$

13) $y = -2(x + 3)^2 - 4$

a) Describe the transformation of the parent function

b) What is the range of the function?

14) $y = -4 + 3\sqrt{x + 1}$

a) What is the "endpoint"?

b) What is the domain?

c) What is the range?

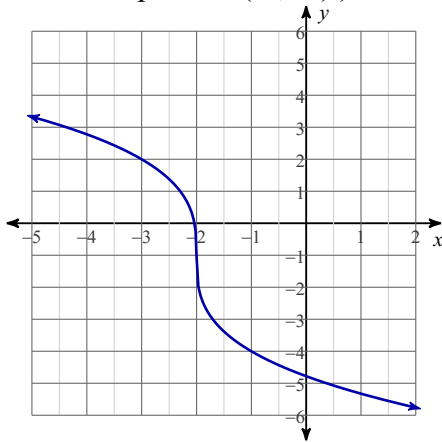
15) What is the equation of a line that passes through: $(1, 6)$ and $(-3, 14)$

16) $f(x) = 2|x - 5| + 1$

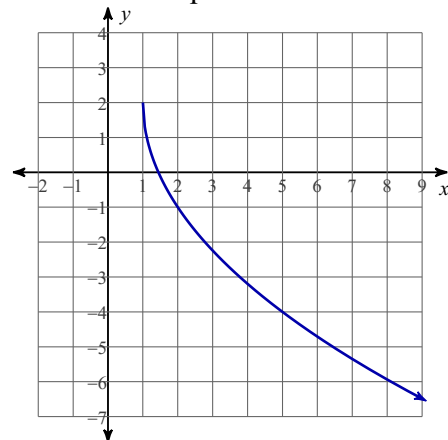
a) What is the vertex of the graph of the following function?

b) What is the range of the function?

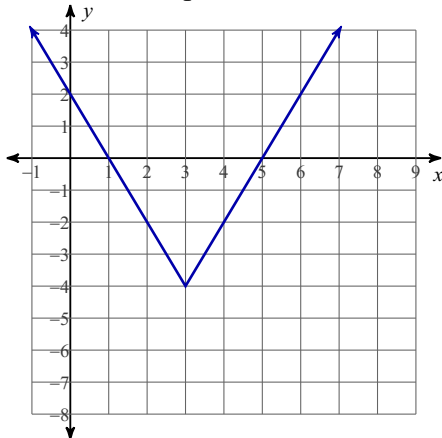
17) What is the equation of the graph? (The inflection point is $(-2, -1)$.)



18) What is the equation?



19) What is the equation?



20) What is the equation?

