Review Math 2 Name_____

Factor Polynomials and Graph Parabolas

Factor each completely.

1) $m^2 - 8m - 9$

2) $k^2 - 9k - 10$

3) $k^2 + 5k - 36$

4) $x^2 - 10x + 25$

5) $n^2 + 3n - 28$

6) $x^2 + x - 20$

7) $4r^2 - 20r + 25$

8) $9n^2 - 4$

9) $16x^2 + 40x + 25$

10) $25v^2 + 20v + 4$

11) $6x^2 - 6$

12) $k^2 - 81$

Sketch the graph of each function.

13) $y = (x - 1)^2 - 1$

14) $y = 2(x - 2)^2 + 2$

15) $y = 3(x - 4)^2 - 3$

16) $y = \frac{1}{2}(x - 4)^2 + 3$

17) $y = (x + 1)^2 - 2$

18) $y = -4(x + 1)^2 + 1$

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

20) $y = -(x + 1)^2 + 3$

Review Math 2 Name_____

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Factor each completely.

1) $m^2 - 8m - 9$

$(m - 9)(m + 1)$

2) $k^2 - 9k - 10$

$(k - 10)(k + 1)$

3) $k^2 + 5k - 36$

$(k - 4)(k + 9)$

4) $x^2 - 10x + 25$

$(x - 5)^2$

5) $n^2 + 3n - 28$

$(n + 7)(n - 4)$

6) $x^2 + x - 20$

$(x + 5)(x - 4)$

7) $4r^2 - 20r + 25$

$(2r - 5)^2$

8) $9n^2 - 4$

$(3n + 2)(3n - 2)$

9) $16x^2 + 40x + 25$

$(4x + 5)^2$

10) $25v^2 + 20v + 4$

$(5v + 2)^2$

11) $6x^2 - 6$

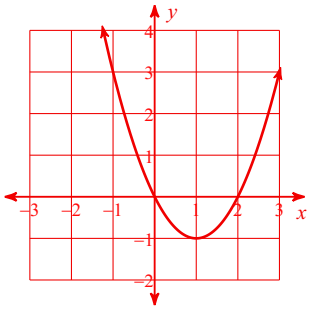
$6(x + 1)(x - 1)$

12) $k^2 - 81$

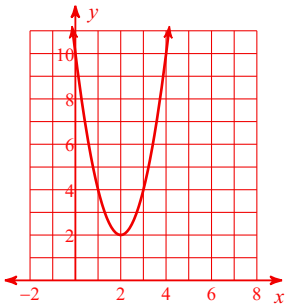
$(k + 9)(k - 9)$

Sketch the graph of each function.

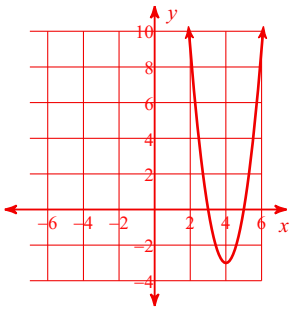
13) $y = (x - 1)^2 - 1$



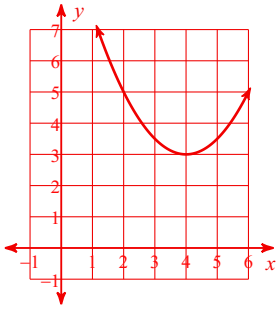
14) $y = 2(x - 2)^2 + 2$



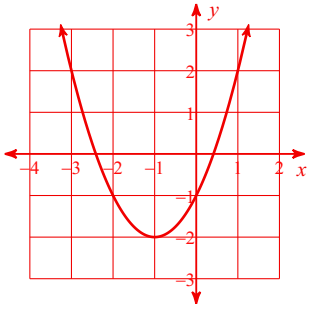
15) $y = 3(x - 4)^2 - 3$



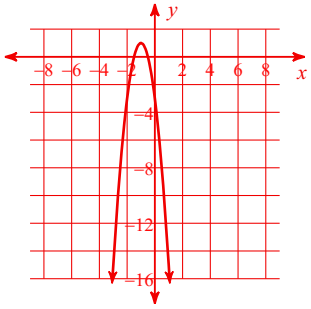
16) $y = \frac{1}{2}(x - 4)^2 + 3$



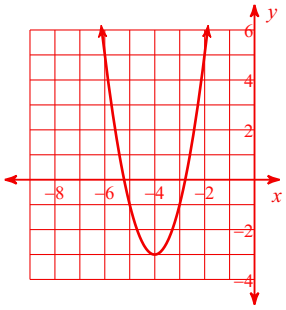
17) $y = (x + 1)^2 - 2$



18) $y = -4(x + 1)^2 + 1$



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



20) $y = -(x + 1)^2 + 3$