Math 10 - Part 7 Name_____

Expanding Polynomials - Exam Review

Find each product.

1) $6x(5x-1)$

$=30x^2-6x$

2) $8x(2x-1)$

3) $2m^5(m-1)$

4) $(2a-6)(4a-3)$

5) $(p-5)(7p-1)$

6) $(x+8)(6x+1)$

7) $(k+7)(k-8)$

8) $(3m+6)(5m-3)$

9) $(6n+4)(n+8)$

10) $(4n-6)(6n+5)$

$=24n^2+20n-36n-30$

$=24n^2-16n-30$

11) $2(5a+4)(4a+2)$

12) $(2n-8)^2$

Math 10P Algebraic Expressions Name_____

Solve Each Equation by Factoring

Date_____

Solve each equation by factoring.

1) $x^2 - 48 = 2x$

$0 = x^2 - 2x - 48$

$0 = (x+6)(x-8)$

$x+6=0$ $\quad x-8=0$

$x=-6$ $\quad x=8$

S.S. $\{-6, 8\}$

2) $n^2 - 4n = -3$

$\times$ -48 $\quad$ $1, 48$

$+$ -2 $\quad$ $2, 24$

$6, -8$

$4, 12$

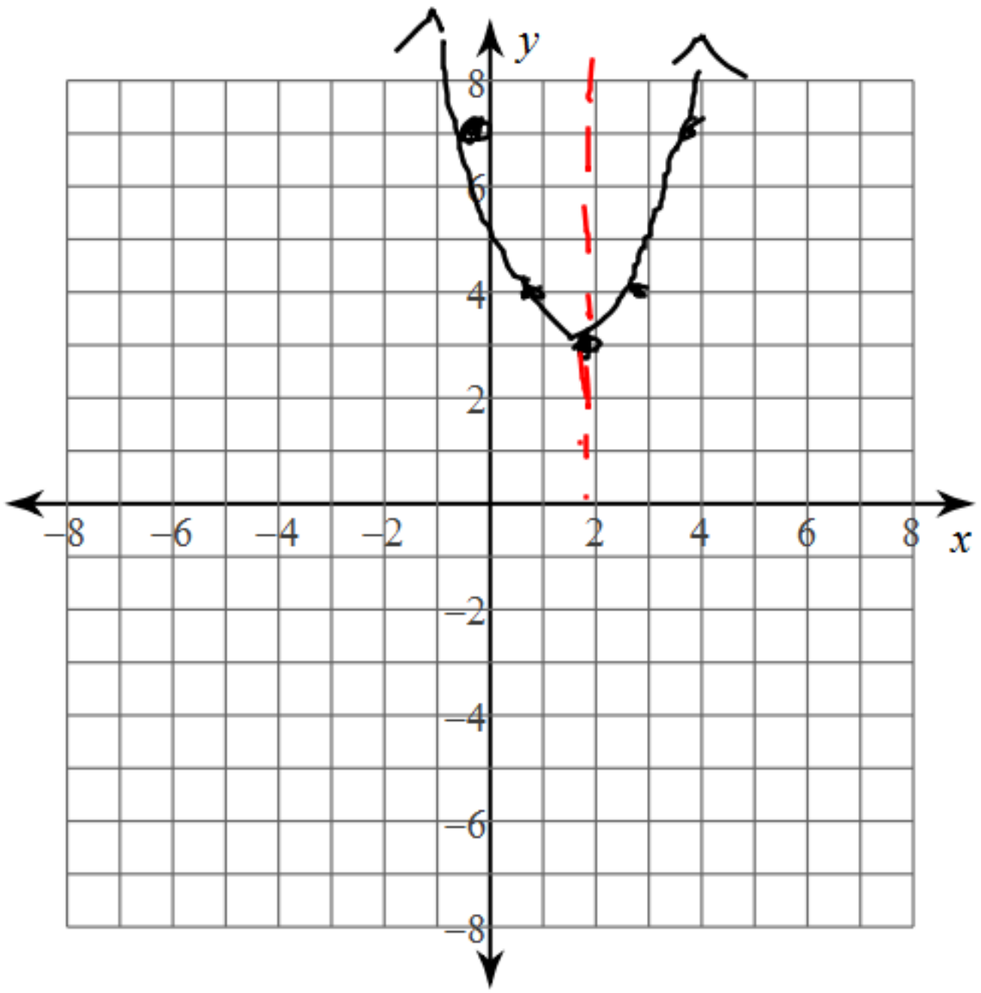
3) $b^2 + 14 = -9b$

4) $2x^2 + 28 = 18x$

Show

Identify the vertex, axis of symmetry, horizontal shift, vertical shift, x intercepts, max/min, and direction of openning of each. Then sketch the graph.

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



Vertex: (2, 3)

a.o.s: x = 2

h.s: 2 right

v.s. 3 up

x-int: none

min

opening up

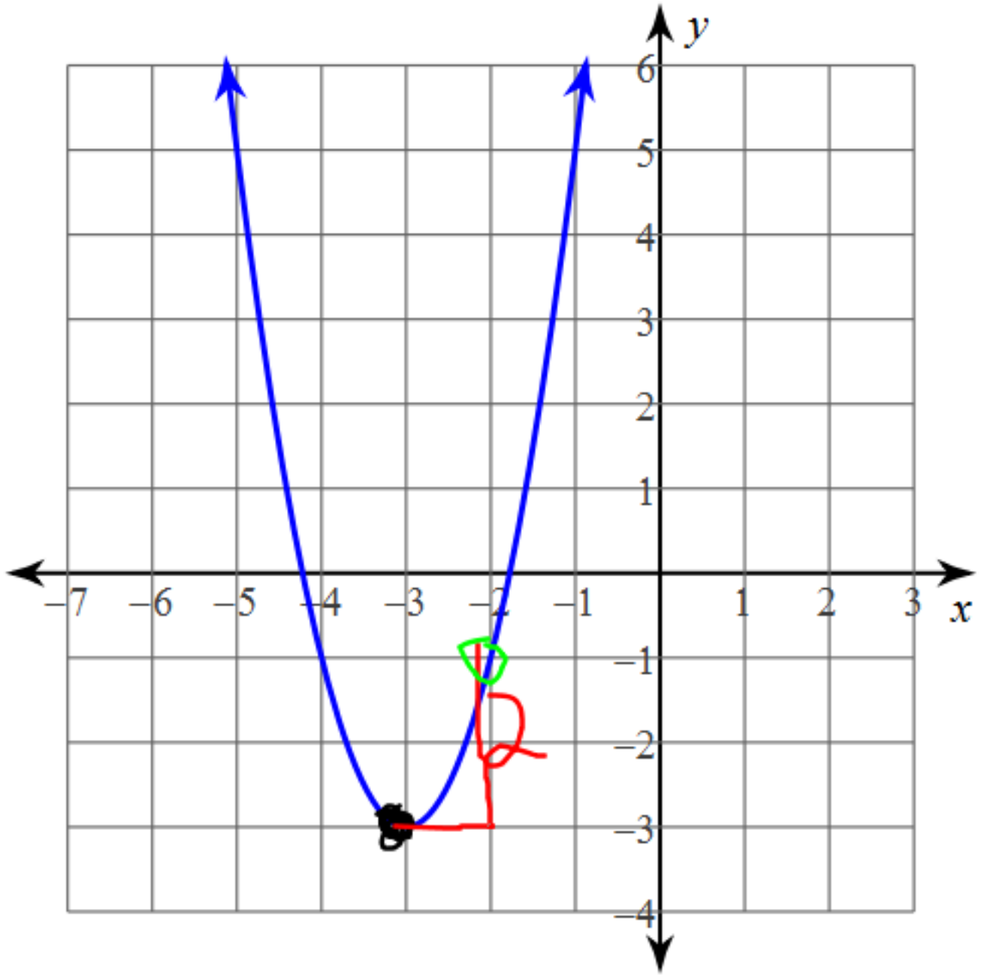
Use the information provided to write the vertex form equation of each parabola. Make sure to state the 'a' value as well. Hint- use the step pattern to determine how many units the parabola goes up or down.

$y = a(x-h)^2 + k$

x a y

changes signs

5)



vertex: $(-3, -3)$

$a = 2$

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