Graphing Quadratics Homework

For each question, state the axis of symmetry, vertex, y-intercept, Direction of Opening, max or min, roots or zero's (x-intercepts).

1. $y = x^2 - 4x + 8$

2. $y = x^2 + 8x + 15$

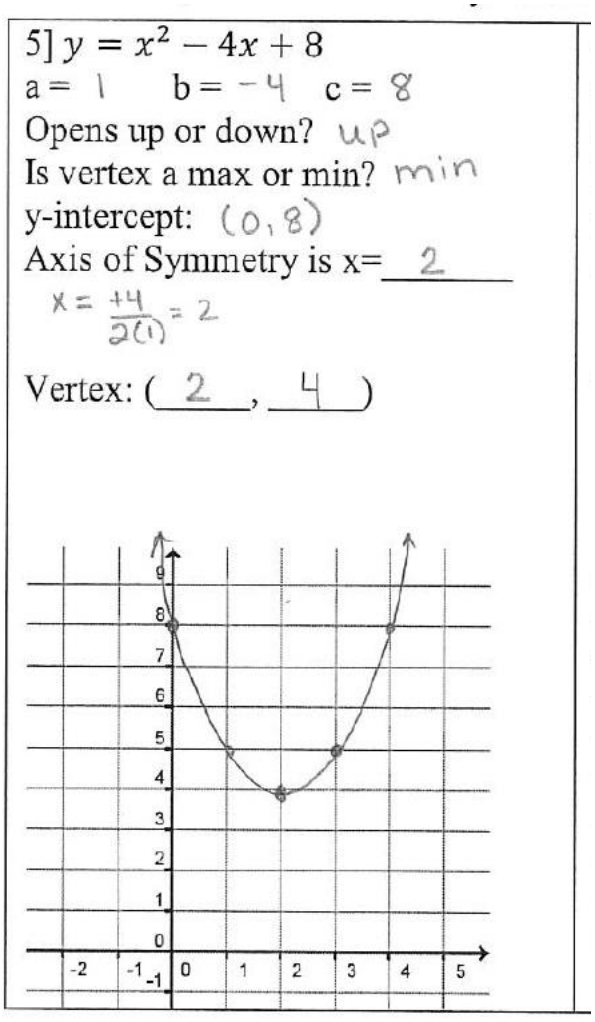
3. $y = x^2 + 12x + 38$

4. $y = -x^2 + 6x - 5$

5. $y = -x^2 - 10x - 26$

Answers

1.



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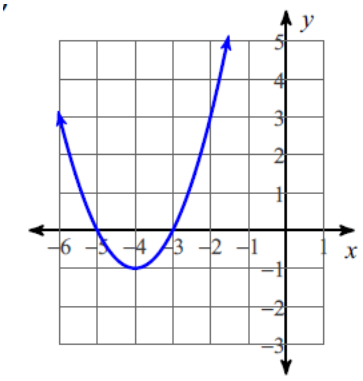
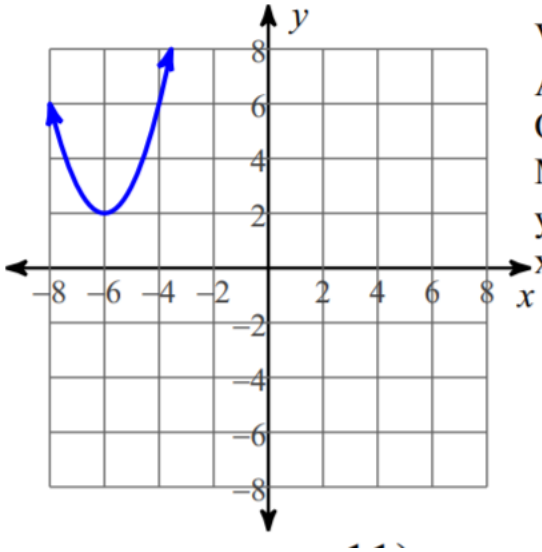
2.

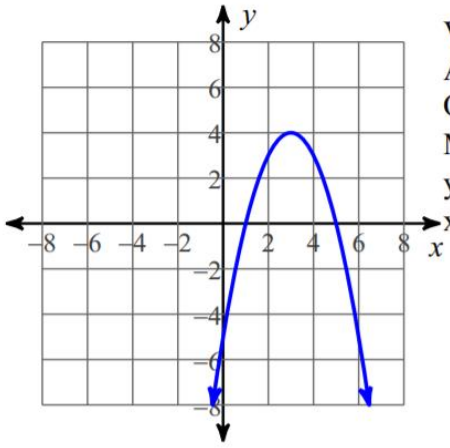


3.



Vertex: $(-6, 2)$
Axis of Sym.: $x = -6$
Opens: Up
Min value = 2
y-int: 38
x-int: None

4.



Vertex: $(3, 4)$
Axis of Sym.: $x = 3$
Opens: Down
Max value = 4
y-int: −5
x-int: 5 and 1

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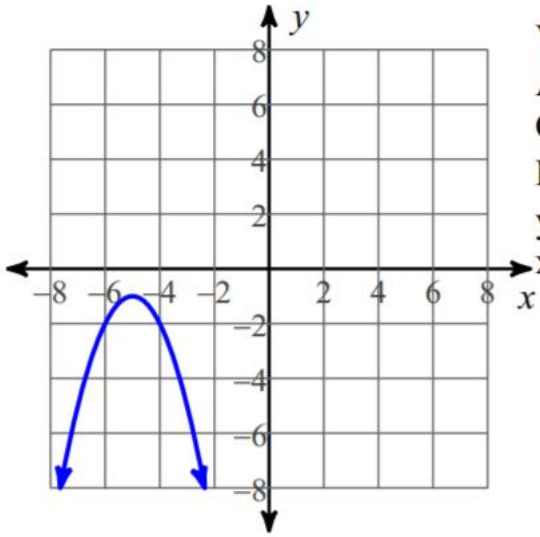
5.



Vertex: $(-5, -1)$
Axis of Sym.: $x = -5$
Opens: Down
Max value = -1
y-int: -26
x-int: None