SM 2

Name:_____ Period:_____

7.3 Zeros of Quadratic Functions

For each function, do the following: 1) state whether the function is in **standard**, **vertex**, or **factored** form, 2) state whether the parabola opens **up** or **down**, 3) find the **zeros** (x-values)**,** 4) state the ***x*-intercepts** as ordered pairs.

1. $y=(2x-5)(x-3)$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

Show work here:

2. $f(x)=-5x(2x-1)$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

Show work here:

3. $y=x^2-9$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

Show work here:

4. $y=2x^2+x-10$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

Show work here:

5. $f(x) = -(x+2)^2 + 9$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

Show work here:

6. $y = -3(x-5)^2 + 6$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

Show work here:

7. $y = (x-4)(x+2)$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

5a) Axis of symmetry: _____

5b) Vertex: _____

Show work here:

8. $f(x) = 6x^2 - 12x$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

5a) Axis of symmetry: _____

5b) Vertex: _____

Show work here:

9. $y = x^2 + 13x + 42$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

5a) Axis of symmetry: _____

5b) Vertex: _____

Show work here:

10. $f(x) = (x-2)^2 - 1$

1) Form: _____

2) Direction of opening: _____

3) Zeros: _____

4) x-intercepts: _____

5a) Axis of symmetry: _____

5b) Vertex: _____

Show work here: