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## RETEST REVIEW: Quadratic Functions

1. Answer the following based on the graph.
A) What is the y-intercept? What does it represent?
B) What is the x-intercept? What does it represent?

C) Identify the vertex
2. The area of a rectangle is represented by the equation $w^{2}+4 w=60$, where $w$ is the width of the rectangle. Find the width.
3. Find the vertex of the quadratic function of $f(x)=-4 x^{2}+12 x-5$.
4. What are the solutions to the quadratic equation $x^{2}-3 x-15=0$ ?
5. What are the y-intercepts and x-intercepts of the graph below. Write these points as ordered pairs.

6. Using the graph in \#5 find the equation for the axis of symmetry.
7. What are the roots of the quadratic function shown below?

8. Find the zeros of $f(x)=-4 x+8$.

The graph below show the height of a baseball from the time it is thrown from the top of a building until the time it hits the ground.

9. What conclusion can be made about the path of the baseball?

A The baseball reached its maximum height at 9 seconds.
B At 0 seconds, the baseball was 125 meters off the ground.
C The baseball was in flight for 4 seconds.
D The maximum height of the baseball was 125 meters.
10. At what time is the baseball at a height of 80 meters?

A 1 second
B 1 second and 7 seconds
C 1 second and 4 seconds
D 9 seconds
11. When did the baseball hit the ground?
A 125 seconds
C 4 seconds
B 9 seconds
D 45 seconds
12. Approximately how much time elapse while the baseball is 70 meters or more above the ground?
A 0.5 seconds
C 6.5 seconds
B 4 seconds
D 9 seconds

