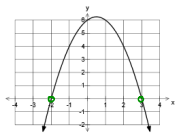
Math 2200 – In Class Assignment **Name:_____**

Part1. Multiple Choice (5)

1. What are the zeros of the quadratic function shown? 1.____



A) (0,-2) & (0,3) B) (-2,0) & (3,0)

C) (2,0) & (-3,0) D) (0,6), (-2,0) & (3,0)

2. Which is a complete factorization of $8x^3-18x$? 2.____

A) $2x(4x^2-9)$ B) $2x(2x-3)^2$ C) $2x(2x+3)^2$ D) $2x(2x-3)(2x+3)$

3. Is $(x+3)$ a factor of $2x^2-7x+3$? Yes or No 3.____

4. What are the zeros of $3(x-4)(5x+2)=0$? 4.____

A) $\frac{2}{5}$ and 4 B) $-\frac{2}{5}$ and 4 C) $-\frac{2}{5}$ and -4 D) $0,-\frac{2}{5}$ and 4

5. What are the x-intercepts of the quadratic function defined by $f(x)=4x^2-8x-12$? 5.____

A) -1 and 3 B) 1 and -3 C) -4 and 12 D) -1 and -3

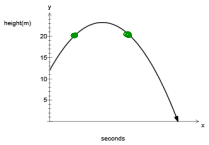
Part 2. Answer all questions in the space provided. (20)

6. Solve each of the following by factoring:

(9) A) $12x^2-13x-4=0$ B) $(x-1)^2-2(x-1)-35=0$ C) $x^2-\frac{5}{2}x-21=0$

7. A cannonball is shot into the air as shown below. The height of the ball above the ground, in metres, t seconds after being shot is approximated by $h(t)=-5t^2+15t+12$. Algebraically determine the times when the ball is at a height of 22 m.

(3)

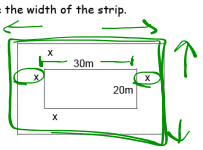


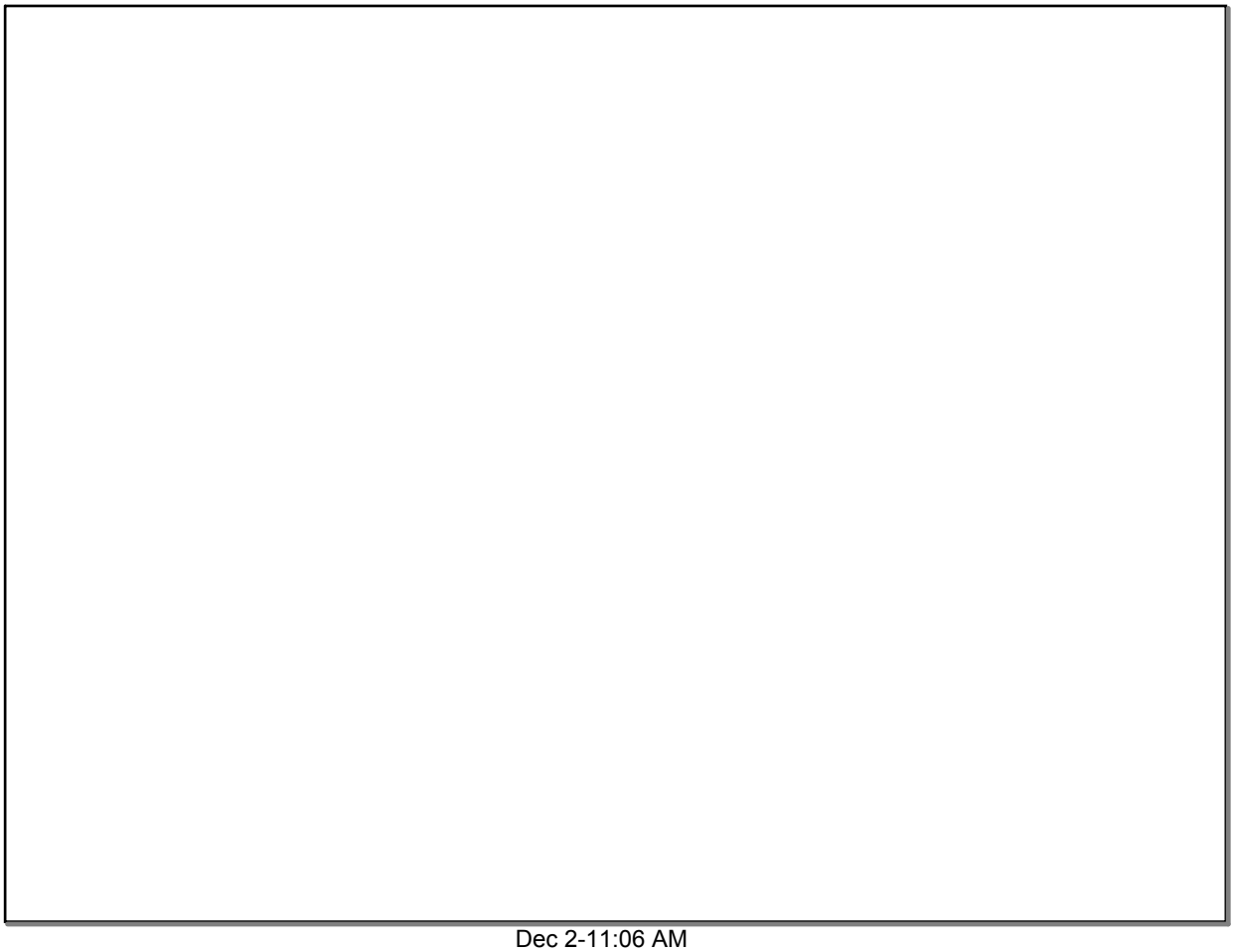
8. A rectangle is 4cm longer than twice its width. If its area is 96cm^2, create a quadratic function to represent the area of the rectangle and solve it to determine the dimensions of the rectangle.

(4)

9. Jill has a 20m by 30m rectangular shaped vegetable garden. She wishes to double its present area by adding a strip of uniform width around the entire garden. Create a quadratic function to represent the area of the new garden and solve it to determine the width of the strip.

(4)





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