


Name: _____

Show work needed to justify your answer.

Date: _____

HW: # 13: Math IBSL - Standard 13 - Applications of Quadratics

5 points

-
- 1 The length of the base of a triangle is four more than twice the height. 
The area of the triangle is 24 m^2 . Find the lengths of the base and height of the triangle.

-
- 3 A bus transports people from an airport to a city centre. It transports 800 people a day at a cost of €5.50 per person. Research has shown that for every decrease of €0.05 in the fare, 10 more people will ride the bus.

Suppose there have been x decreases of €0.05 below the initial cost of €5.50.

- a Find an expression, in terms of x , for the bus fare.
- b Find an expression, in terms of x , for the number of people who ride the bus in a day.
- c Find an expression, in terms of x , for the daily revenue generated by people riding the bus.
- d Find the number of fare decreases that result in a revenue of €4500.
- e Find an appropriate domain for this context.

