Math 096 - Quiz 10

May 3, 2017

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (4.5 points) Solve each proportion for x. Show your work for full credit.

    (a) $\dfrac{7}{5} = \dfrac{x}{25}$

    (b) $\dfrac{3}{x} = \dfrac{5}{12}$

    (c) $\dfrac{12}{22} = \dfrac{x-5}{x}$

2. (1.5 points) A grasshopper can jump 20 times its length. If jumping ability in humans was proportional to a grasshoppers, how far could a 6-ft tall person jump?

3. (4 points) A right triangle has legs of length 4 and 7.

    (a) Find the length of the hypotenuse.

    (b) A similar right triangle has its shortest leg of length 10. Find the length of the other leg and the hypotenuse.