

Algebra 201-007-50 C1
Quiz 10
October 13, 2008

Name: SOLUTIONS
Student ID: _____

1. (3 marks). Solve for x in the proportion:

$$\frac{9}{5} = \frac{12}{3x+2}$$

$$9(3x+2) = 5(12)$$

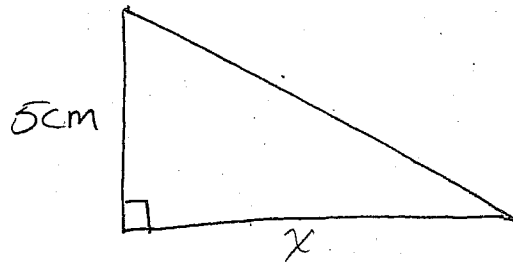
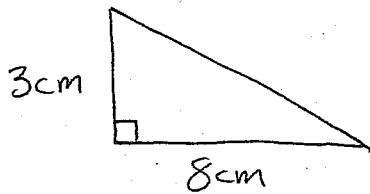
$$27x + 108 = 60$$

$$27x = 60 - 108$$

$$27x = -48$$

$$x = \frac{-48}{27}$$

2. (4 marks). The following are similar triangles. Find the area of the triangle on the right.



$$\frac{5}{3} = \frac{x}{8}$$

$$40 = 3x$$

$$x = \frac{40}{3}$$

$$A = \frac{1}{2}bh = \frac{1}{2} \cdot \frac{40}{3} \cdot 5$$

$$= \frac{20}{3} \cdot 5 = \frac{100}{3} \text{ cm}^2$$

3. (3 marks). Simplify:

$$2\sqrt{6} \cdot 3\sqrt{3}$$

$$= 6\sqrt{18}$$

$$= 6\sqrt{9} \cdot \sqrt{2}$$

$$= 6 \cdot 3\sqrt{2}$$

$$= 18\sqrt{2}$$