Name: Solution

MAC1105 Section 1A26
Quiz 4

Please show all of your work in a NEAT and ORGANIZED fashion.

1. (4 points) Simplify the expression.

$$\sqrt{20}+2\sqrt{45}-\sqrt{125} =$$
$$\sqrt{4\cdot5}+2\sqrt{9\cdot5}-\sqrt{25\cdot5} =$$
$$2\sqrt{5}+2(3\sqrt{5})-5\sqrt{5} =$$
$$2\sqrt{5}+6\sqrt{5}-5\sqrt{5} =$$
$$3\sqrt{5}$$

2. (3 points) Multiply and simplify.

$$(3+\sqrt{2})(2+\sqrt{8}) =$$
$$6+3\sqrt{8}+2\sqrt{2}+\sqrt{16} =$$
$$6+3\sqrt{4\cdot2}+2\sqrt{2}+4 =$$
$$6+6\sqrt{2}+2\sqrt{2}+4 =$$
$$10+8\sqrt{2}$$

3. (3 points) Solve the linear equation.

$$-3(x-8)=4x+10$$
$$-3x+24=4x+10$$
$$-3x+24-4x=4x+10-4x$$
$$-7x+24=10$$
$$-7x+24-24=10-24$$
$$\frac{-7x}{-7}=\frac{-14}{-7}$$
$$x=2$$