Quiz 2: Add, Subtract, Multiply and Simplify Radicals.

1. Simplify each (5 marks).

a)
$$5\sqrt{2} + 7\sqrt{11} + 2\sqrt{2} - 3\sqrt{11}$$

b)
$$\sqrt{24} + \sqrt{150} - \sqrt{54}$$

c)
$$5\sqrt{12} - 7\sqrt{20} - 3\sqrt{45}$$

2. Multiply each, always express in simplest form. (5 marks)

a)
$$5\sqrt{3} \times 2\sqrt{7}$$

b)
$$\sqrt{8} \times \sqrt{6}$$

c)
$$3\sqrt{6} \times 4\sqrt{3}$$

3. Multiply each, always express in simplest form. (5 marks)

a)
$$2\sqrt{3}(2\sqrt{8} + 5\sqrt{3})$$

b)
$$(3\sqrt{6} - 5\sqrt{2})^2$$

4. Express the mixed radical $5\sqrt{3}$ as an entire radical. (2 marks)