

0.9375
8 7.5
30
60
40
0

Fourth Quiz
April 12, 2013

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1. Evaluate and give your answer in scientific notation:

$$\frac{(3 \times 10^{-3})(2.5 \times 10^7)}{8 \times 10^{-4}} = \frac{3 \times 2.5}{8} \times 10^{-4} \times 10^{-3} \times 10^7$$
$$= \frac{7.5}{8} \times 10^8$$
$$= 0.9375 \times 10^8$$
$$= \boxed{9.375 \times 10^7}$$

2. Find the simplified expanded form of the following polynomials:

(a) $(7x^2 - 2x + 1) - (3x^2 - 2x - 1) = 7x^2 - 2x + 1 - 3x^2 + 2x + 1$

~~4x^2~~ = $\boxed{4x^2 + 2}$

(b) $(2x - 3)(3x^2 - 4x - 2) = 6x^3 - 8x^2 - 4x - 9x^2 + 12x + 6$

$$= 6x^3 - 17x^2 + 8x + 6$$

(c) $(2x - 3)^2 = (2x - 3)(2x - 3)$

$$= 4x^2 - 6x - 6x + 9$$
$$= \boxed{4x^2 - 12x + 9}$$