TRIGONOMETRY HW 1

1) Simplify $\dfrac{2x}{3} + \dfrac{5x}{6}$

2) Simplify $3(x + 6) + 2y - 5(y - 2) - 10x$

3) Evaluate $2a + 2b + 3c + 4d - 5e - 6f$ when $a = 8; b = 15; c = -3; d = 2; e = -6; f = -1$

4) When $x = 3$ and $y = 5$, by how much does the value of $3x^2 - 2y$ exceed the value of $2x^2 - 3y$?

5) Evaluate $\dfrac{2}{\dfrac{1}{7} + \dfrac{1}{a}}$ when $a = 3$

Challenge If $x = 2.0001$, which of the following expressions has the largest value? Explain your answer.

(a) $\dfrac{2}{x + 2}$

(b) $\dfrac{2}{x - 2}$

(c) $\dfrac{x + 2}{2}$

(d) $\dfrac{2}{x}$

(e) $\dfrac{x}{2}$