Math 085 - Quiz 7

March 13, 2013

Name key

Score _____

Show all your work to receive full credit. Supply explanations when necessary.

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1. (3 points) Multiply and simplify.

   (a) $\frac{\cancel{4}^{1}}{10} \cdot \frac{\cancel{5}^{1}}{\cancel{20}_{\cancel{5}\,1}} = \frac{1}{10}$

   (b) $-\frac{5}{\cancel{6}_{1}} \cdot \frac{(-\cancel{24}^{4})}{1} = +\frac{20}{1} = 20$

   (c) $\frac{\cancel{36}^{4}}{\cancel{85}_{17}} \cdot \frac{\cancel{25}^{5}}{\cancel{-99}_{-11}} = -\frac{20}{187}$

   (d) $\left(-\frac{15}{\cancel{22}_{11}}\right) \cdot \frac{\cancel{4}^{2}}{7} = -\frac{30}{77}$

   (e) $\frac{\cancel{16}^{4}}{\cancel{-15}_{-3}} \cdot \frac{\cancel{5}^{1}}{\cancel{4}_{1}} = -\frac{4}{3}$

   (f) $\frac{\cancel{-12}^{3}}{1} \cdot \frac{1}{\cancel{4}_{1}} = -3$

2. (1 point) Of the students in the freshman class, $\frac{4}{5}$ have digital cameras. $\frac{1}{4}$ of these students join the photography club. What fraction of students in the freshman class join the photography club?

   $$\frac{1}{\cancel{4}_{1}} \cdot \frac{\cancel{4}^{1}}{5} = \frac{1}{5}$$

3. (1 point) Solve for x.

   (a) $\frac{-7}{22} = \frac{x}{132} \Rightarrow 22x = -924 \Rightarrow x = -42$

   (b) $-\frac{7}{8} = \frac{x}{32} \Rightarrow -8x = 224 \Rightarrow x = -28$