Fri Nov 30, 2012 **MATH 210, Quiz 9** Prof. V. Panferov

Name (print): Solutions.

Each problem is worth 2 points. Show all your work.

1. Write the following fractions as finite or repeating decimals:

(a) $\frac{3}{8}$ (b) $\frac{24}{9}$

$$\frac{3}{8} = \frac{3}{2\cdot 2\cdot 2} = \frac{3\cdot 5\cdot 5\cdot 5}{2\cdot 2\cdot 2\cdot 5\cdot 5\cdot 5} = \frac{3\cdot 125}{10^3} = \frac{375}{1000} = 0.375$$

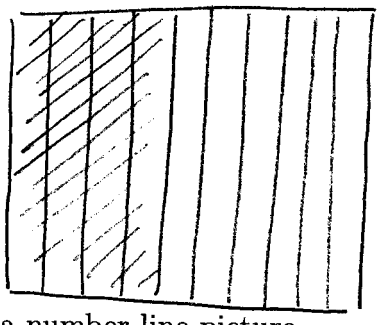
$$\begin{array}{r|l} & 2.6666 \\ 9 & 24.000000 \\ & 18 \\ & 60 \\ & 54 \\ & 60 \\ & 54 \\ & 6 \end{array}$$ (60, 54 repeating) ...

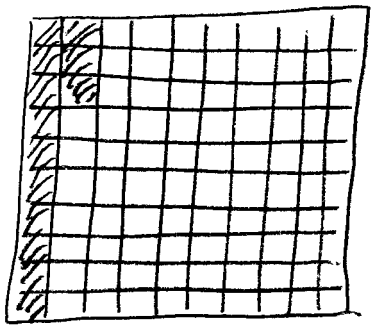
$$= 2.\overline{6}$$

2. Daniel writes $0.4 < 0.13$ "because 4 is less than 13". Explain the correct reasoning

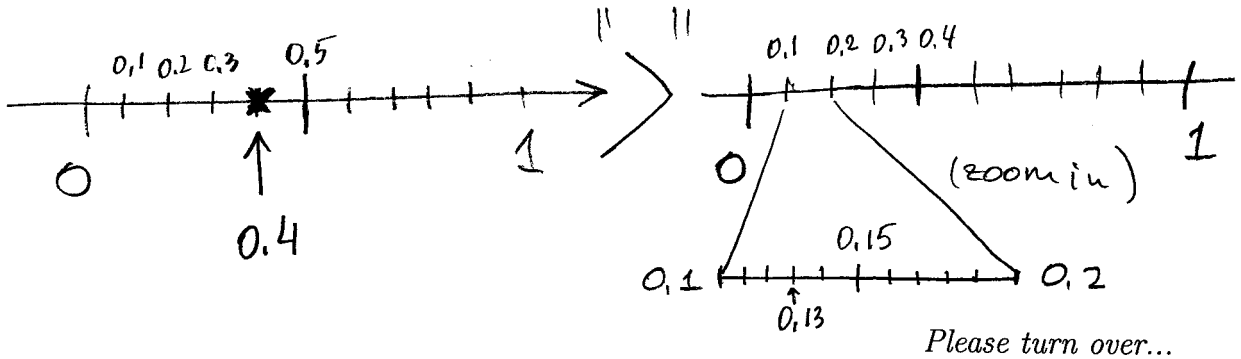
(a) by drawing the hundredths charts (rectangular arrays)

$0.4 = \frac{4}{10} = 0.40$ $<$ $0.13 = \frac{13}{100}$





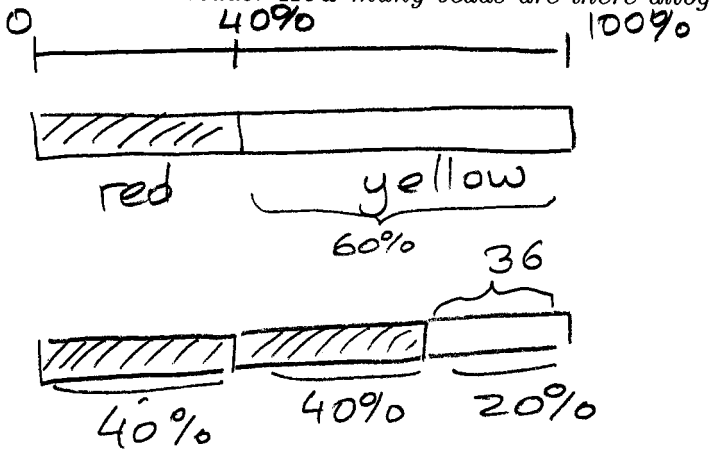
(b) by a number line picture



Please turn over...

3. Give a "teacher's solution" to the problem (diagram is optional but may be helpful). Make sure you present your solution in a clear way.

40% *of the beads in a box are red and the rest are yellow. There are* 36 *more yellow beads than red beads. How many beads are there altogether?*



20% ⟷ 36 beads

100% ⟷ 5 × 36 = 180 beads