Complete in this handout:

1. Calculate:

$\frac{1}{2} + \frac{1}{3} =$ $\frac{1}{2} - \frac{1}{3} =$

$\frac{1}{2} \cdot \frac{1}{3} =$ $\frac{1}{2} : \frac{1}{3} =$

$\frac{2}{3} + \frac{3}{4} =$ $\frac{2}{3} - \frac{3}{4} =$

$\frac{2}{3} \cdot \frac{3}{4} =$ $\frac{2}{3} : \frac{3}{4} =$

$\frac{5}{12} + \frac{3}{16} =$ $\frac{5}{12} - \frac{3}{16} =$

$\frac{5}{12} \cdot \frac{3}{16} =$ $\frac{5}{12} : \frac{3}{16} =$

$\frac{1}{4} + \frac{3}{8} =$ $\frac{1}{4} - \frac{3}{8} =$

$\frac{1}{4} \cdot \frac{3}{8} =$ $\frac{1}{4} : \frac{3}{8} =$
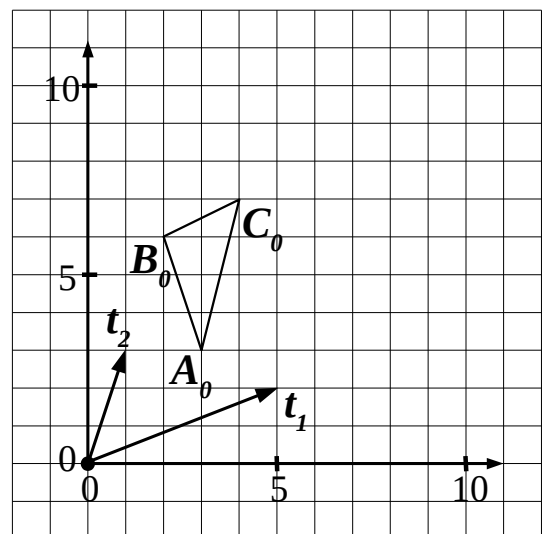
2. Expand decimal fractions:

a). 1.13 =   *b).* 1.03 =

c). 0.12 =   *d).* 0.012 =

3. Move $\triangle A_0B_0C_0$ as indicated by arrow t_1 to produce $\triangle A_1B_1C_1$. Move $\triangle A_1B_1C_1$ as indicated by arrow t_2 to produce $\triangle A_2B_2C_2$.

4. *Solve the joint action problems; explain each step in your solution.*

a). A pipe can fill up a swimming pool in 3 hours. Another pipe can drain the pool in 6 hours. How long will it take to fill the pool with both pipes open?

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b). Cities **A** and **B** are 160 km away from each other. At noon a bus leaves from each city bound to another one. One bus moves 45 km/h. Another bus moves 35 km/h. When will the buses meet?

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Complete in your notebook:

5. Show that …
a) … $(12x + 6) : ¾ - (8 + 16x) \cdot ¾ = 4x + 2$

b) … $(3x - 9) \cdot ⅖ - (x - 3) : ⅚ = 0$

6. Solve the equations below.

$$7 - x : \frac{4}{3} = 4 \qquad \frac{2}{7}x + 8 = 6 \qquad \left|\frac{3}{4}y - 4\right| = 3$$

Answers: $x = 1$ $x = -7$ $\{-4/3, 4\}$