Math 4e. Homework 5.

Exercises:

1. Evaluate:

   a. $\frac{1}{3}-\frac{1}{4}$; *b.* $\frac{1}{3}+\frac{1}{4}$; *c.* $\frac{1}{5}+\frac{1}{4}$;

2. Evaluate:

   a. $3\cdot\frac{1}{2}$; *b.* $3\cdot\frac{1}{3}$; *c.* $\frac{1}{3}\cdot 3$; *d.* $\frac{1}{3}\cdot\frac{1}{2}$; *e.* $\frac{1}{5}\cdot\frac{1}{3}$

3. Simplify the following fractions:2

   Example:

   $$\frac{125}{75}=\frac{25\cdot 5}{25\cdot 3}=\frac{\cancel{25}\cdot 5}{\cancel{25}\cdot 3}=\frac{5}{3}$$

   $\frac{22}{66}$; $\frac{125}{75}$; $\frac{75}{100}$; $\frac{24}{360}$; $\frac{125}{1000}$; $\frac{100}{250}$; $\frac{198}{126}$

4. Evaluate (simplify before evaluation):

   Example:

   $$\frac{3\cdot 8}{16\cdot 9}=\frac{3\cdot 8}{8\cdot 2\cdot 3\cdot 3}=\frac{\cancel{3}\cdot\cancel{8}}{\cancel{8}\cdot 2\cdot\cancel{3}\cdot 3}=\frac{1}{2\cdot 3}=\frac{1}{6}$$

   $\frac{2\cdot 3}{4\cdot 5}$; $\frac{2\cdot 3}{7\cdot 2}$; $\frac{5\cdot 4}{4\cdot 9}$; $\frac{7\cdot 5}{2\cdot 7}$

5. There are 6 pencils in the box. $\frac{1}{3}$ of them are red. How many red pencils are in the box?

6. On Halloween night, Peter ate half of the chocolates he had collected. The next day, he ate half of the remaining candies and gave the rest to his younger brother. He gave his brother 5 chocolates. How many candies did Peter collect?

7. For the birthday party Mary bought 10 strawberry ice-creams and 5 chocolate ice-creams. What fraction of the ice-creams is chocolate flavored?

8. Julia’s father’s step is 70 cm long, Julia’s step is 20 cm smaller. They start walking making their first step simultaneously. How far they should go to have next simultaneous step?