

Math 4a. Homework 13.

Next week, please, bring your classwork from last week.

1. Compute:

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

$$\frac{\frac{1}{2} + \frac{1}{3}}{\frac{1}{4} + \frac{1}{5}} =$$

$$\frac{\frac{1}{4} + \frac{2}{5}}{\frac{3}{4} + \frac{9}{10}} + \frac{2}{33} =$$

$$\frac{\frac{\frac{3}{4}}{\frac{9}{8}}}{\frac{8}{\frac{7}{4}}} =$$

2. A dog and a cat share the food. Alone the dog eats this amount of food three times as fast as the cat. Together they finish their food in 12 minutes. How many minutes does it take the dog to eat his food alone? How many minutes does it take the cat?

3. Tom and Jerry have to mail 1000 envelopes for a new marketing campaign. Jerry can do the job alone in 6 hours. If Tom helps, they can get the job done in 4 hours. How long would it take Tom to do the job by himself?

4. Triplets, Justin, Jason, and Jacob are working on a school project. Justin can complete the project by himself in 6 hours, Jason can complete the project by himself in 9 hours, and Jacob can complete the project by himself in 8 hours. How long would it take the triplets to complete the project if they work together?

5. Simplify and solve if possible:

$$2(x + 3) - 4 + (2 - x) =$$

$$16 \div 2 (8 - 3(4 - 2)) + 1 =$$

$$-9 + \frac{9+20}{2(1+4)} - (-3) =$$

6. Solve the following equations:

$$y \cdot \frac{7}{10} = \frac{9}{10}$$

$$4x + \frac{1}{3} = x + \frac{4}{3}$$

$$\frac{1}{2}a + \frac{2}{5} = \frac{3}{2}a - \frac{1}{5}$$

$$b \div \frac{2}{3} + \frac{1}{6} = \frac{11}{12}$$