

1) Compute the following expressions:

$$\text{a) } \frac{x}{4} - \frac{7x}{2} =$$

$$\text{d) } \frac{x^2y}{4} \times \frac{2xyz}{5} =$$

$$\text{b) } 5\frac{x}{2} + 1\frac{3}{8} =$$

$$\text{e) } \frac{x^3}{121y} \div \frac{2xy^2}{11} =$$

$$\text{c) } \frac{\frac{x}{5} + \frac{y}{6}}{\frac{x}{6} + \frac{y}{5}} =$$

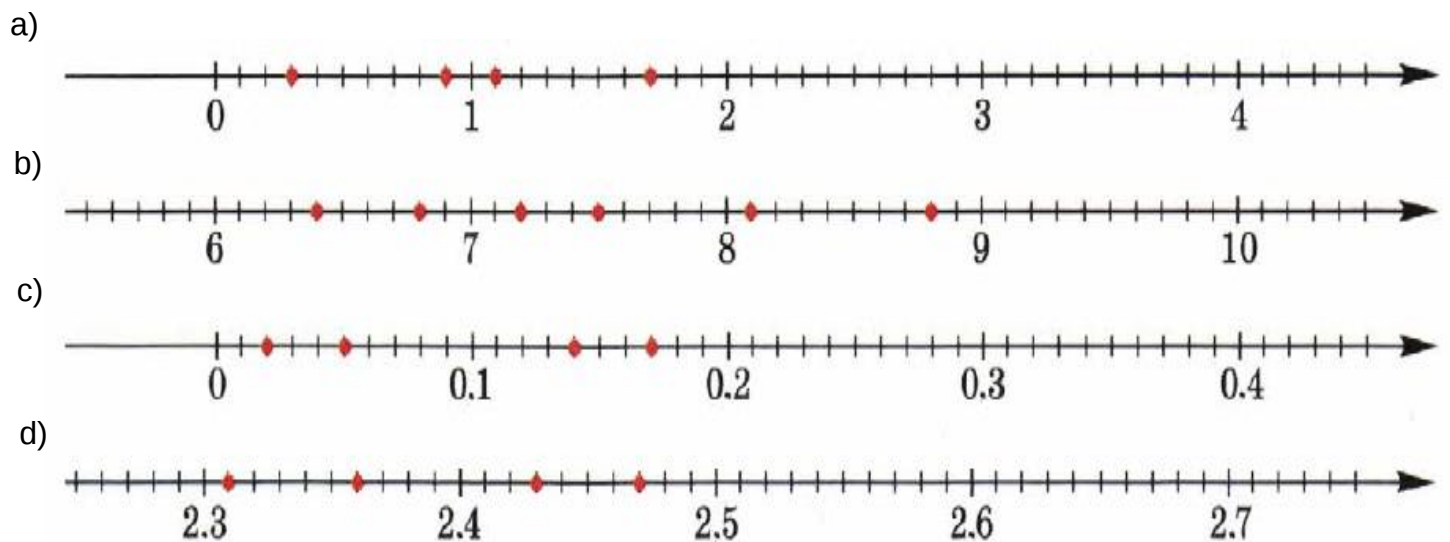
$$\text{f) } \frac{\frac{x^2}{3y^3} \times \frac{7x^2y}{14x}}{\frac{2x}{3} + \frac{5y}{6}} =$$

2) Write in decimal notation the following fractions:

a. $\frac{9}{10}$ $\frac{24}{100}$ $\frac{375}{1000}$ $\frac{29}{100}$ $\frac{47}{1000}$ $\frac{7}{10}$ $\frac{999}{1000}$ $\frac{99}{100}$

b. $\frac{1}{2}$ $\frac{3}{4}$ $\frac{2}{5}$ $\frac{7}{20}$ $\frac{18}{25}$ $\frac{23}{50}$

3) Which numbers are marked on the number lines below?



4) Compare (using =, > or <):

0.756

0.76

0.12345

0.0102030405

3.4208

3.4028

0.32032032

0.321

4.0986

4.1

2.57043566

2.57034566666

12.576

9.99999

7.77777777

7.77777777

5) Three points are marked on a line (point M, point N and point O) so that the length of a segment $|MN| = 5\text{ cm}$, the length of a segment $|NO| = 3\text{ cm}$. What is the length of a segment $|MO|$? Draw the picture, use ruler!

6) On the diagrams of sets, A, B, and C, put exactly 2 elements so that

- a. each set contains 2 elements
- b. set A contains 2 elements, set B contains also 2 elements, and set C contains 1 element.
- c. set A contains 2 elements, sets B and C contain 1 element each
- d. set A contains 2 elements, set B contains 1 element, and set C is an empty set
- e. set A contains 2 elements, set B contains 2 elements, and set C is an empty set
- f. each set contains 1 element

