

Math 5b, homework 6.



1. Write as a periodical decimal;

Example: $0.\bar{8} = 0.88888 \dots$; $0.34\overline{543} = 0.34543543543 \dots$

a. $0.\bar{5}$; b. $0.12\overline{333}$; c. $0.\overline{1243}$;

2. Write as a fraction

a. $0.\overline{25}$, b. 0.25, c. $0.\bar{7}$, d. 0.7, e. $0.1\bar{2}$, f. $0.\overline{12}$, g. 0.12

3. Sea water contains 5% salt (by weight). How many kilograms of fresh water should be added to 40 kg of sea water to obtain a solution with 2% salt?

4. Represent as a decimal:

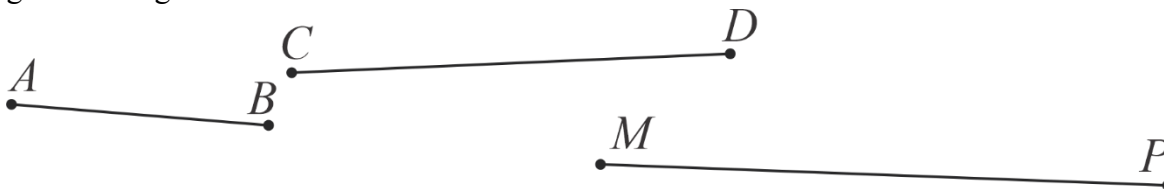
$\frac{11}{25}$; $\frac{13}{16}$; $\frac{5}{9}$; $\frac{3}{5}$; $\frac{13}{22}$;

5. When a number is divided by 8, the remainder is 5. What will be the remainder when this number is divided by 4?

6. Compare:

a. 2^3 and 3^2 ; b. 3^6 and 6^3 ; c. $(-2)^4$ and 4^2 ; d. 5^4 and $(-4)^5$
e. $(-2)^3$ and 3^{-2} ; f. $(-4)^{-3}$ and $(-3)^{-4}$
g. $(-5)^{-6}$ and $(-6)^{-5}$; h. $(-2)^{-6}$ and $(-6)^{-2}$

7. Take a look on a ruler. Try to guess the length of the segments on the picture. Write the guessed lengths of all three segments. Measure them with a ruler (in centimeters). Write down the measured lengths too. Find the difference between the measured length and guessed length.



8. In your notebook copy the picture and continue, use ruler:

