Math 4a. Homework 8.

1. Fill the emty spaces:
   Example:

   $$\frac{2}{3} = \frac{2 \cdot 4}{3 \cdot 4} = \frac{8}{12};$$

   $a.\dfrac{6}{10} = \dfrac{}{5};$ $d.\dfrac{1}{2} = \dfrac{}{20};$ $g.\dfrac{5}{15} = \dfrac{}{3};$

   $b.\dfrac{1}{2} = \dfrac{}{12};$ $e.\dfrac{2}{8} = \dfrac{}{4};$ $h.\dfrac{1}{4} = \dfrac{}{16};$

   $c.\dfrac{6}{15} = \dfrac{}{5};$ $f.\dfrac{5}{18} = \dfrac{}{6};$ $i.\dfrac{1}{2} = \dfrac{}{14};$

2. Compute by the most convinent way:
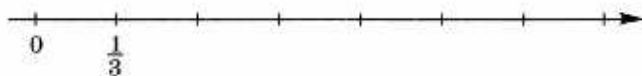
   $a.\ \dfrac{3}{7} + \dfrac{4}{9} + \dfrac{4}{7} + \dfrac{5}{9};$

   $b.\ \dfrac{1}{11} + \dfrac{1}{5} + \dfrac{4}{11} + \dfrac{4}{5} + \dfrac{6}{11};$

   $c.\ \dfrac{1}{15} + \dfrac{4}{15} + \dfrac{1}{18} + \dfrac{5}{18} + \dfrac{2}{21} + \dfrac{5}{21} + \dfrac{1}{24} + \dfrac{7}{24};$
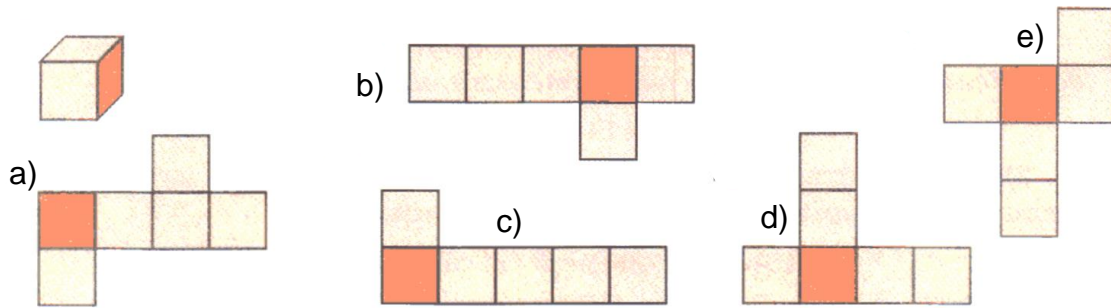
   $d.\ \dfrac{1}{8} + \dfrac{1}{12} + \dfrac{1}{16} + \dfrac{1}{20} + \dfrac{3}{8} + \dfrac{5}{12} + \dfrac{7}{16} + \dfrac{9}{20}$

3. On the number lines below, mark the number 1.

4. What number should be placed instead of "?"

5. Glass holds 200 grams of milk. Which part of glass should be filed with milk to get 160 grams.

6. Which of the pictures below are the cub nets?

7. Draw a straight line, mark the points A, B, C, D, K so that
   a. point C belongs to the segment $[AB]$ ($C \in [AB]$)
   b. point D belongs to the ray $[AB)$ and doesn't belong to the segment $[AB]$
      ($D \in [AB)$ and $D \notin [AB]$)
   c. point K belongs to the ray $[BA)$ and doesn't belong to the segment $[AB]$
      ($K \in [BA)$ and $D \notin [AB]$)

8. Draw 3 straight lines (use a ruler) so that they divide the plane into
   a. 4
   b. 6
   c. 7 parts?
9. Draw the segment [AB] (use ruler). Mark the point K so that points A, B, and K don't lie on the same line. Through the point K
   a. draw a line b intersecting the segment [AB]
   b. draw a line d, which doesn't intersect the segment [AB]