

Math 5b, homework 15.



1. Draw a line. Mark 2 points. How many segments are now on the line? Mark one more point. How many segments are on the line now? If four points marked on the line, how many segments they produce? 5 points? 10 points? Write number 21201_3 in 10-based (decimal) system.

2. Do the operations with angular measures:
($25^\circ 36' 24''$ 25 degrees, 36 minute, 24 seconds)

a. $25^\circ 36' 24'' + 36^\circ 24' 40''$

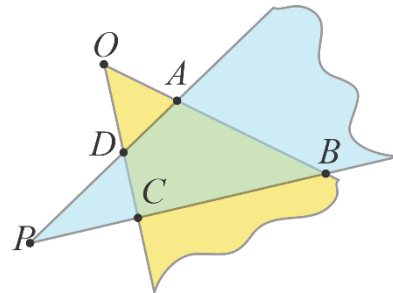
b. $48^\circ 26' + 28^\circ 36' 34''$

c. $48^\circ 48' 48'' - 24^\circ 36' 36''$

d. $3 \cdot 24^\circ 36'$

3. Quadrilateral ABCD is in intersection of the angles $\angle DOA$ and $\angle DRC$. Draw two angles so that they intersect by
("Intersection" is a common part.)

- a. a point;
- b. a ray;
- c. a triangle;
- d. an angle;
- e. a segment.



4. The boat's own speed is 15 km/h. The speed of the river current is 3 km/h. How much time will it take to sail 36 km up the river and back on this boat?
5. People can leave the movie theater through a small door and a big door. If only the small door is open, everyone leaves in 10 minutes. If only the big door is open, everyone leaves in 6 minutes. How long will it take for the theater to empty if both doors are open at the same time?
6. Write +, -, , : instead of * so that the expressions become w true statements.

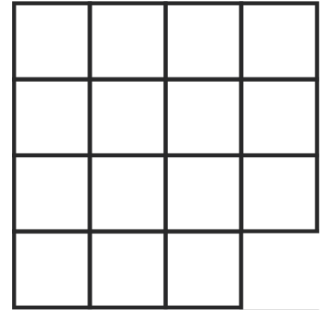
a. $0.4 * \frac{1}{5} = \frac{11}{15}$;

b. $3 * 2\frac{1}{4} = 1\frac{1}{3}$;

c. $1\frac{1}{5} * \frac{5}{8} = 0.75$;

d. $2\frac{1}{6} * 0.5 = 1\frac{2}{3}$;

7. Cut the shape by the grid lines into three equal (by shape and area) parts.



8. John took cards with numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 from his sister (one card each, 10 in total). He laid them out in pairs on the table and suddenly noticed that the two-digit numbers he made were in the ratio of 1:2:3:4:5. When he wanted to show this cool result to his dad later that evening, he realized the card with the number 0 was missing! But after thinking about it, he made five new numbers using the remaining cards, and they were also in the ratio of 1:2:3:4:5. How did he arrange the cards the first and second time?