



**Учитель математики и
информатики
МБОУ гимназии №2 г. Сальска
Кузьминчук Елена Сергеевна**



Выберите верные утверждения:

$\angle 1$ и $\angle 3$ - вертикальные

$\angle 5$ и $\angle 1$ - односторонние

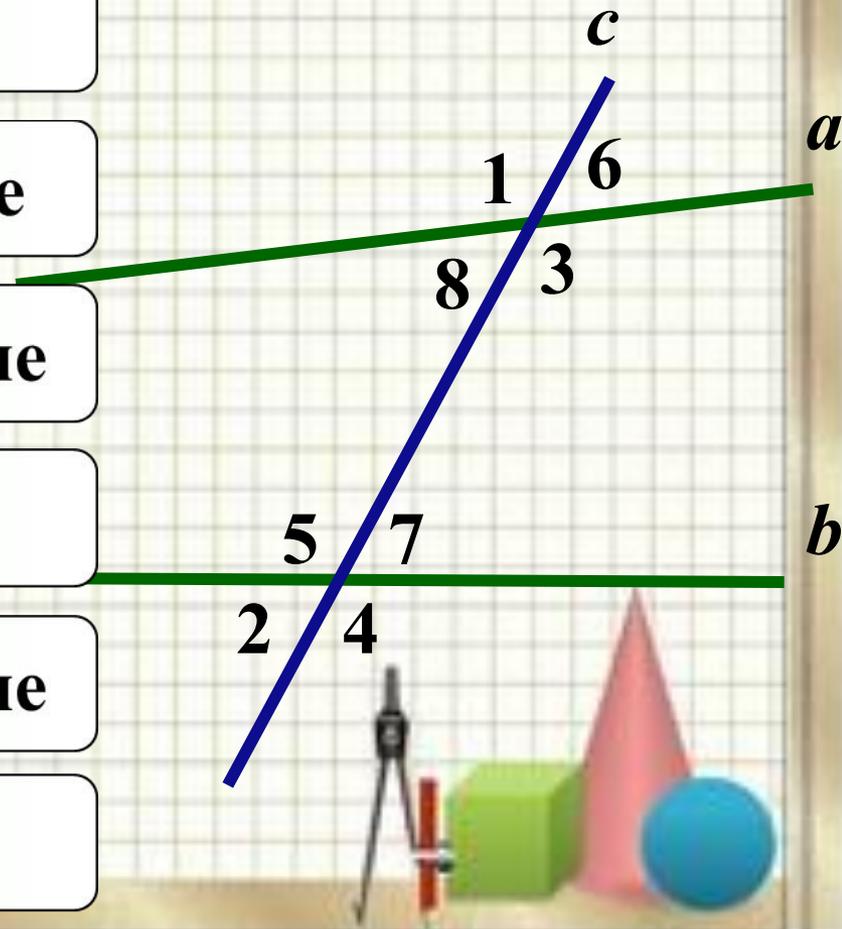
$\angle 7$ и $\angle 6$ - соответственные

$\angle 5$ и $\angle 3$ - накрест лежащие

$\angle 2$ и $\angle 4$ - смежные

$\angle 7$ и $\angle 1$ - накрест лежащие

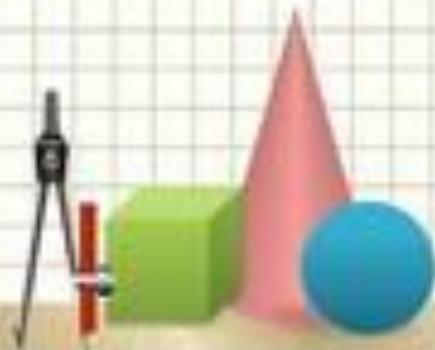
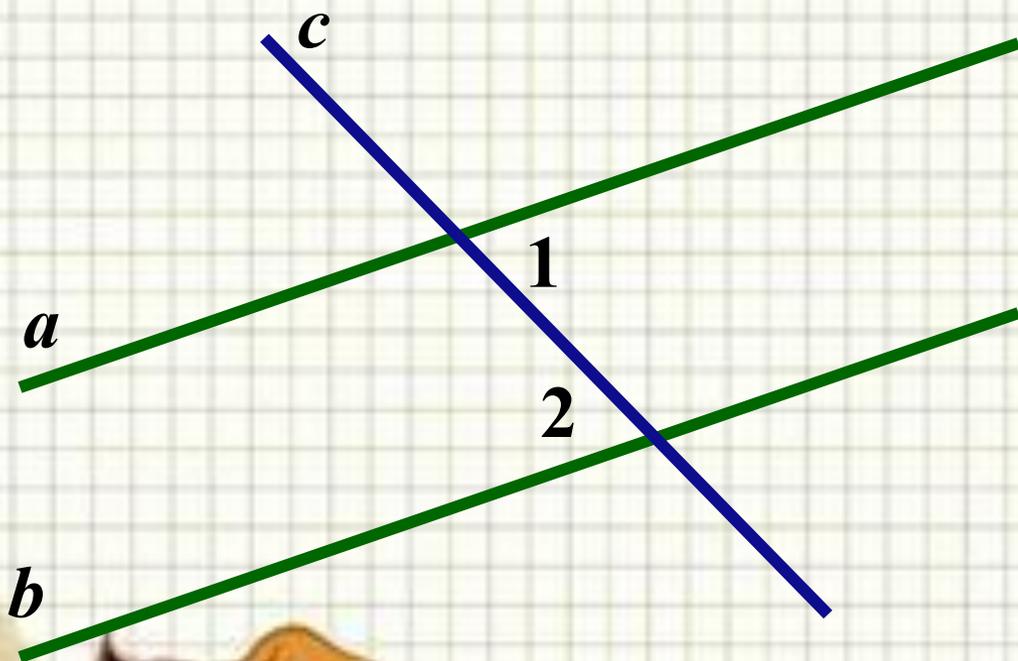
$\angle 3$ и $\angle 7$ - односторонние



1.

Дано: $\angle 1 = 32^\circ, \angle 2 = 32^\circ$

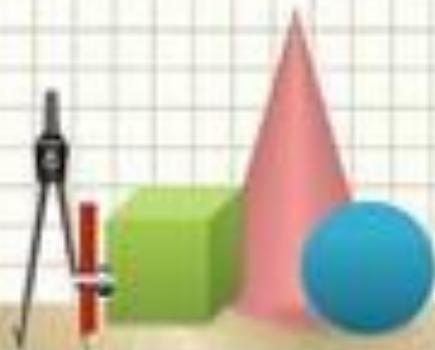
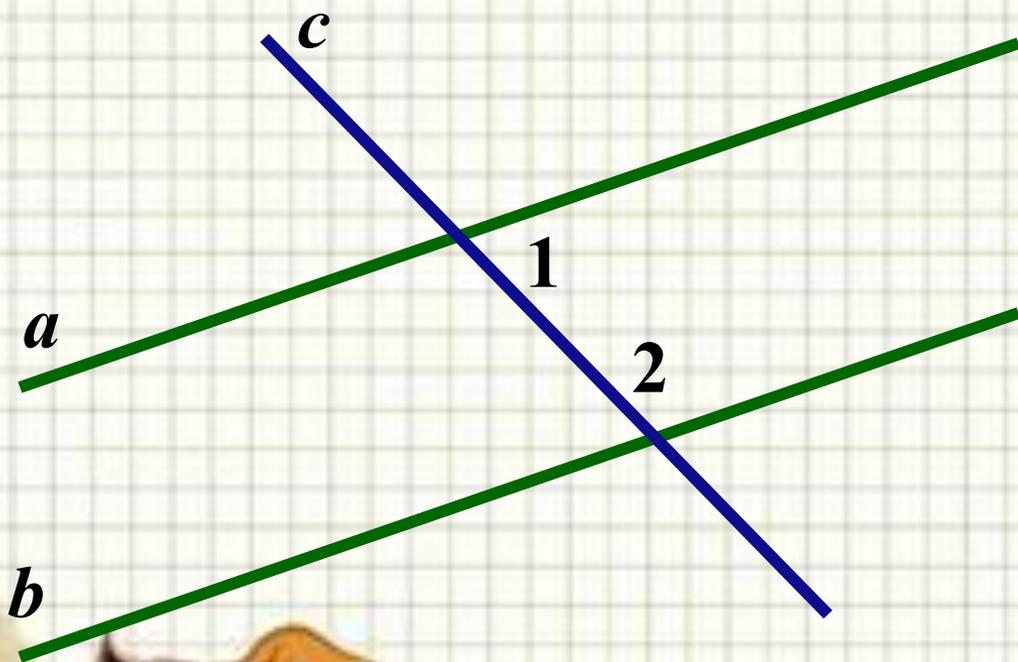
Доказать: $a \parallel b$



2.

Дано: $\angle 1 = 48^\circ, \angle 2 = 132^\circ$

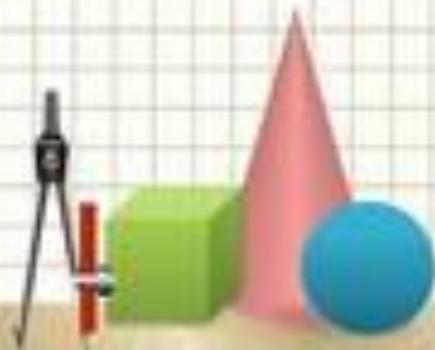
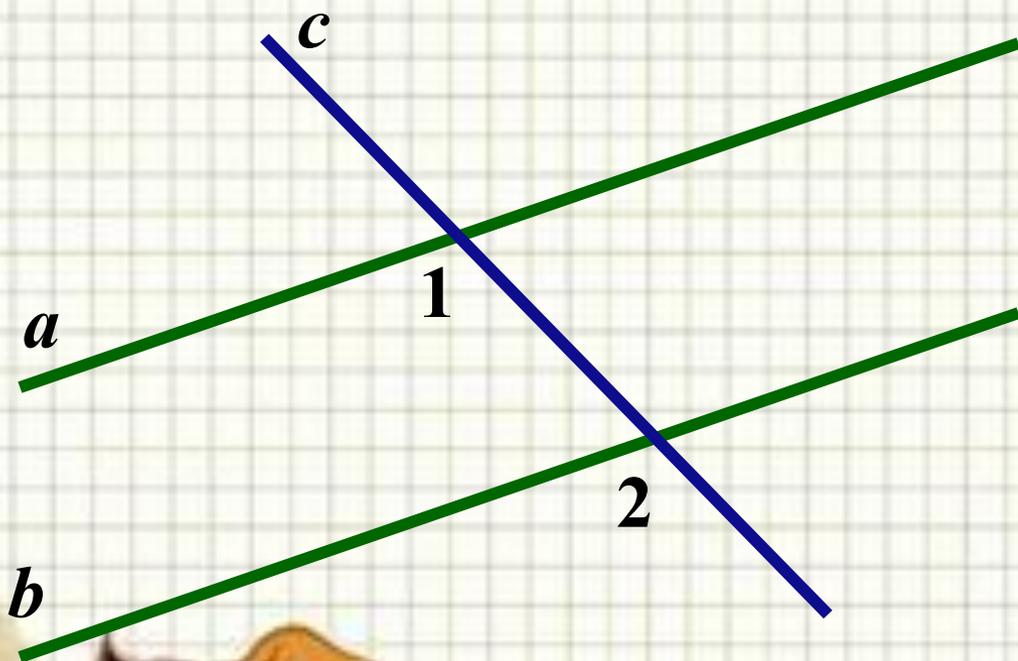
Доказать: $a \parallel b$



3.

Дано: $\angle 1 = 102^\circ, \angle 2 = 102^\circ$

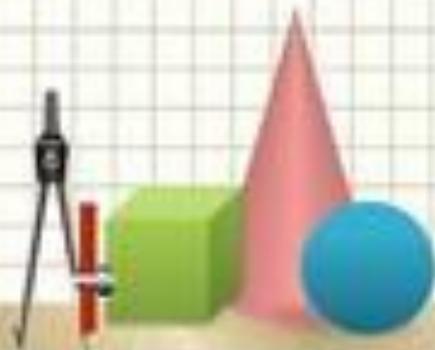
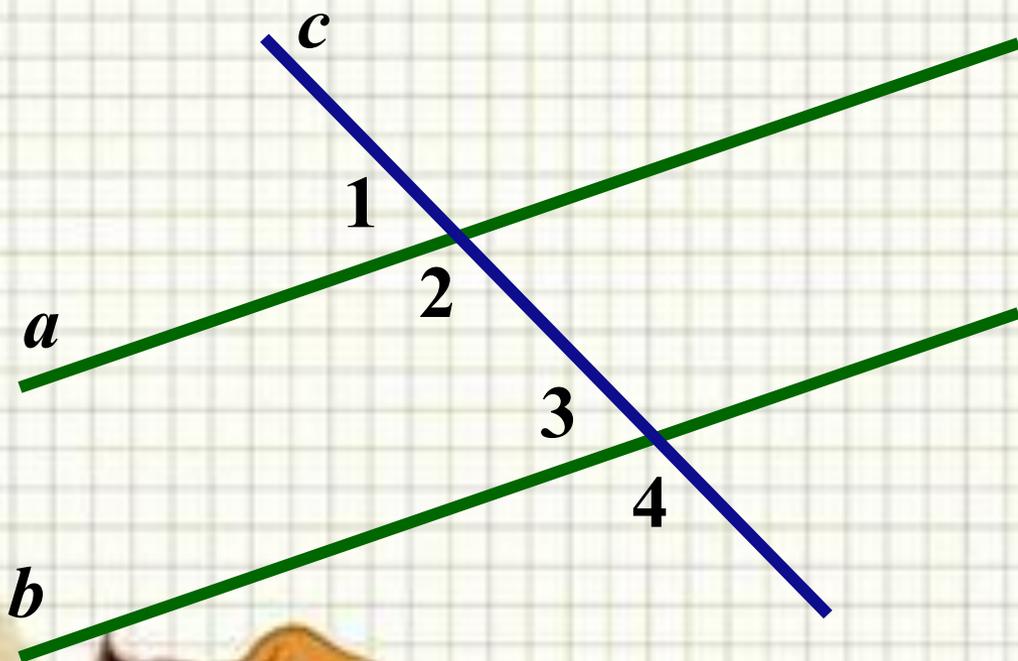
Доказать: $a \parallel b$



4.

Дано: $\angle 1 = 42^\circ, \angle 4 = 138^\circ$

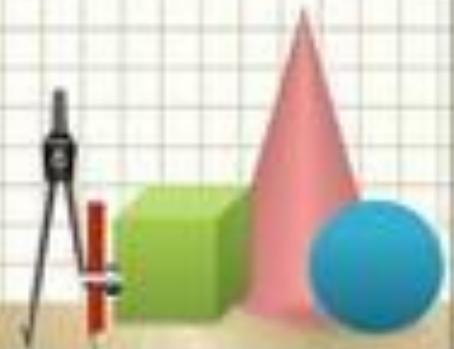
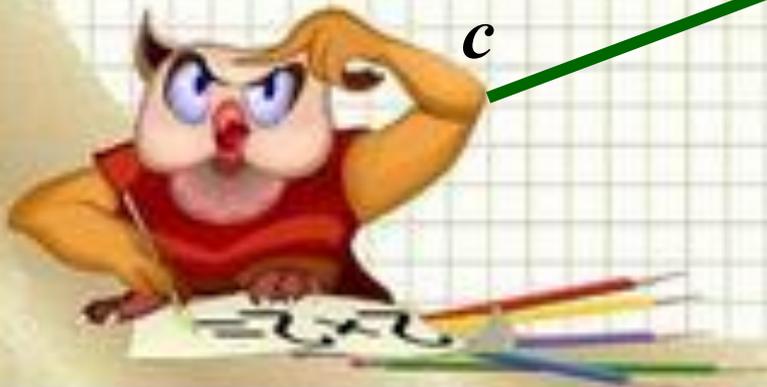
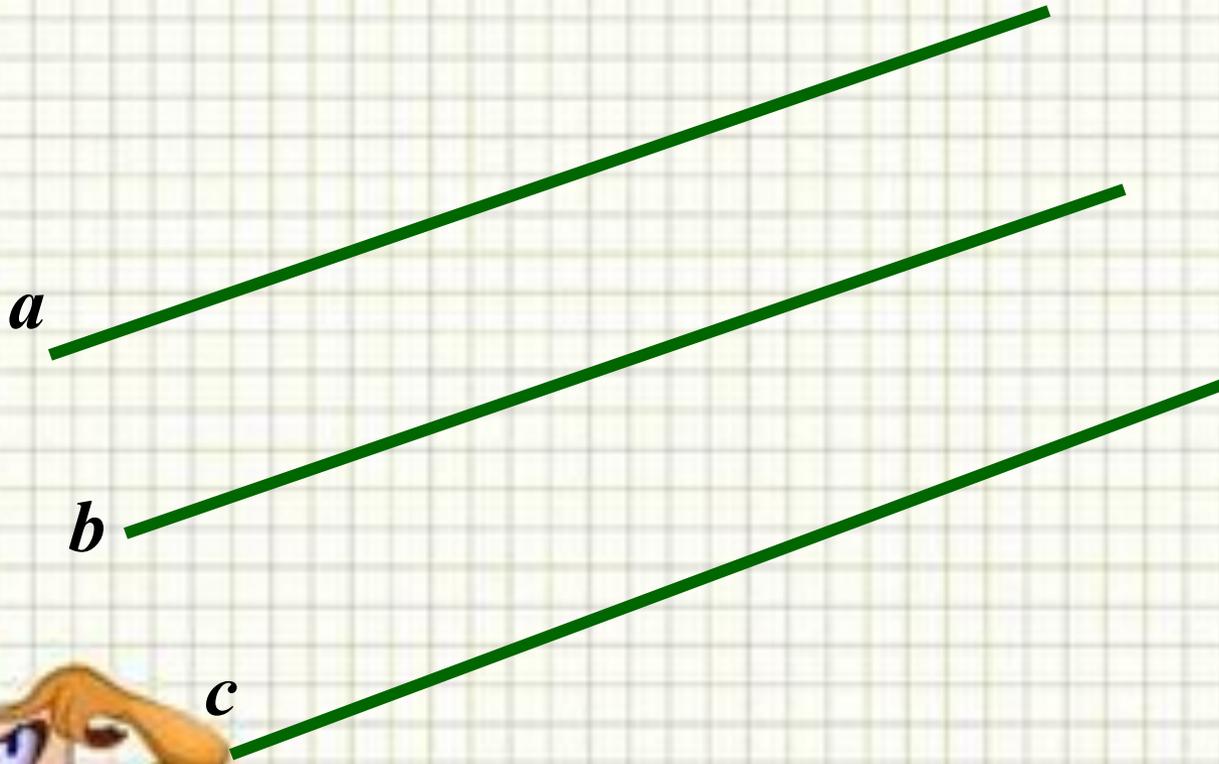
Доказать: $a \parallel b$



5.

Дано: $a \parallel b, b \parallel c$

Доказать: $a \parallel c$



Параллельны ли прямые a и b , если

$$\angle 1 = \angle 3$$

ДА

$$\angle 1 = \angle 4$$

ДА

$$\angle 1 + \angle 2 = 180^\circ$$

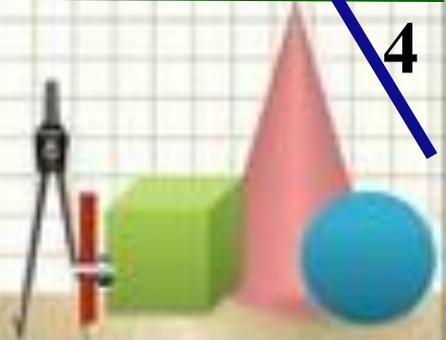
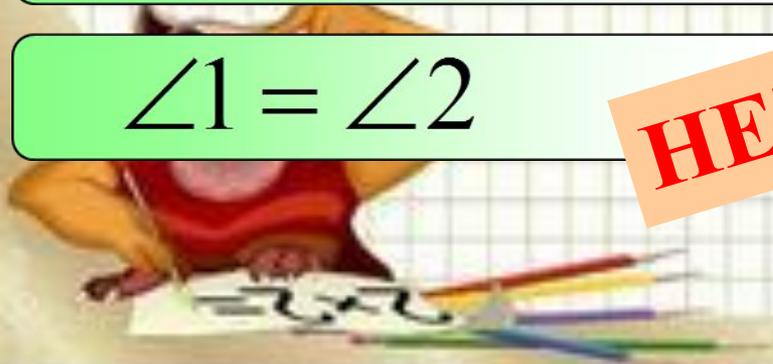
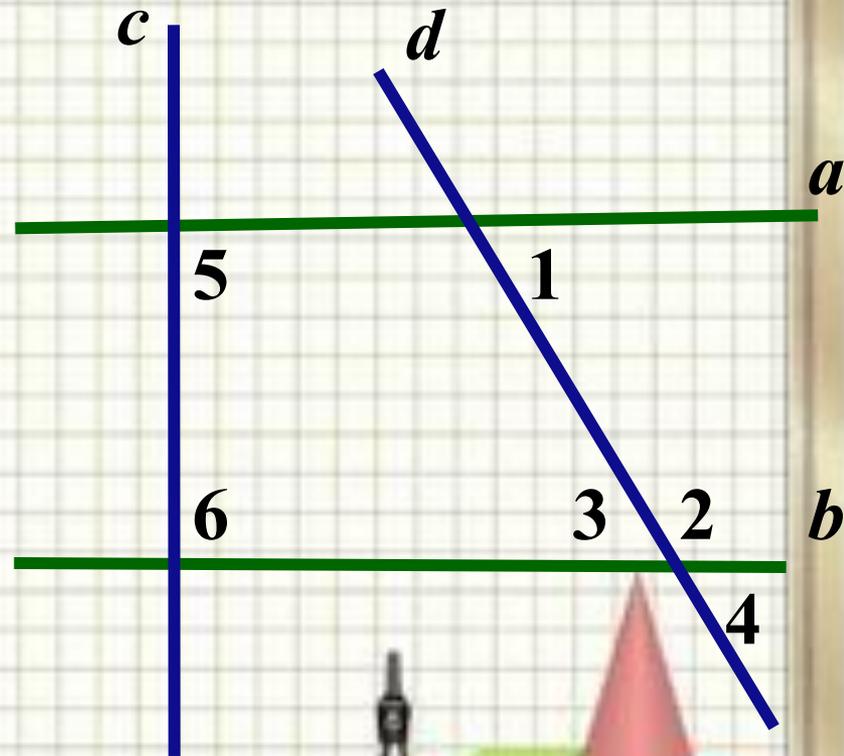
ДА

$$\angle 5 = \angle 6 = 90^\circ$$

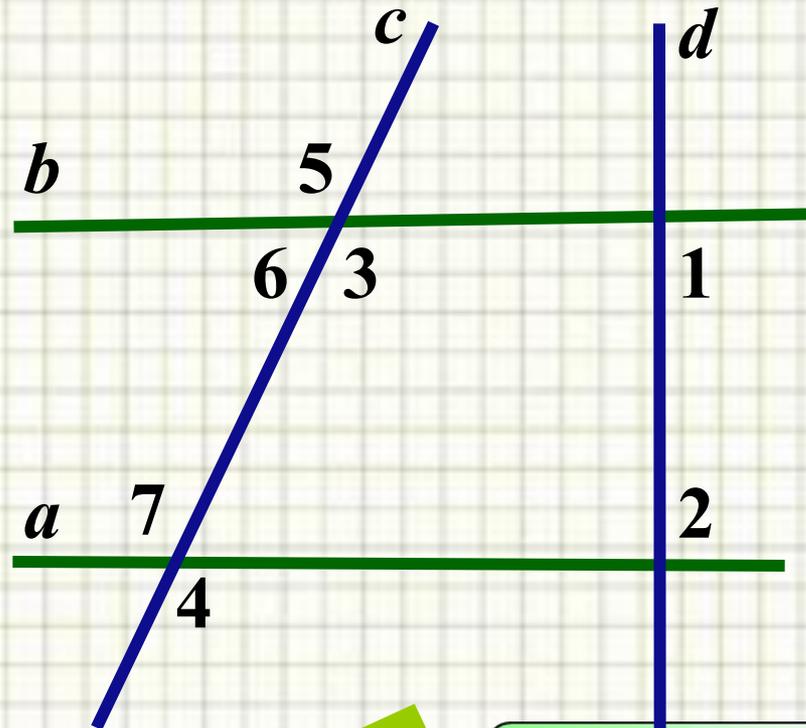
ДА

$$\angle 1 = \angle 2$$

НЕТ



Проверка



I вар.

II вар.

$$\angle 3 = \angle 4$$

ДА

$$\angle 7 = \angle 5$$

ДА

$$\angle 6 = \angle 4$$

НЕТ

$$\angle 6 = \angle 4$$

НЕТ

$$\angle 1 = \angle 2 = 90^\circ$$

ДА

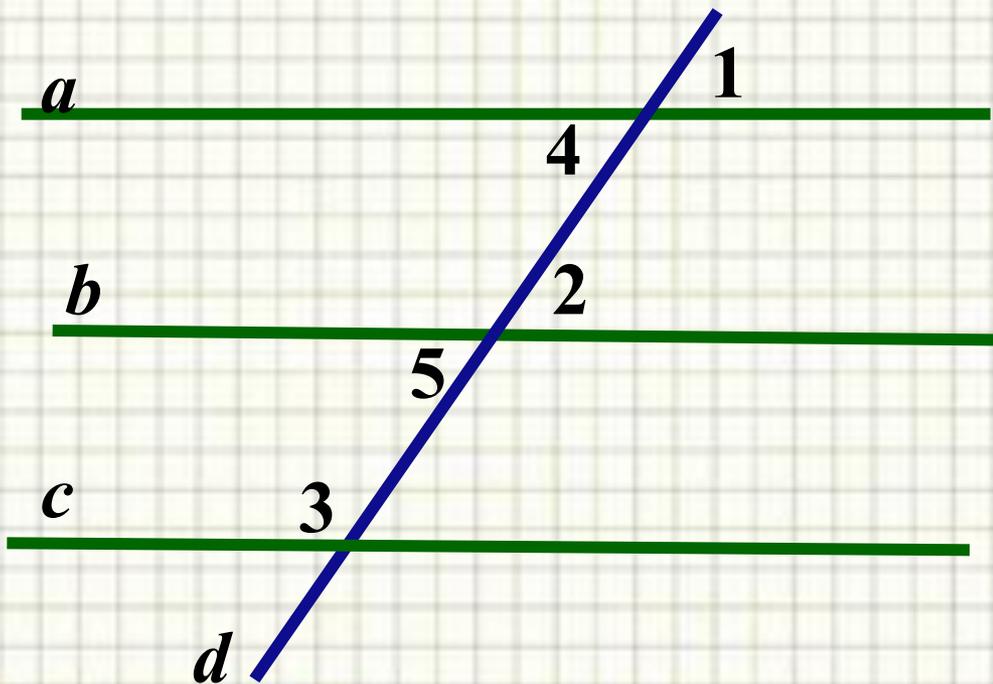
$$\angle 4 + \angle 6 = 180^\circ$$

ДА

6.

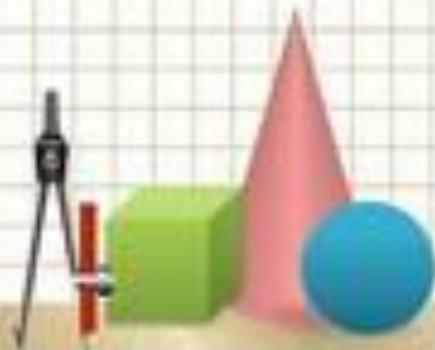
Дано: $\angle 1 = \angle 2, \angle 2 + \angle 3 = 180^\circ$

Доказать: $a \parallel c$



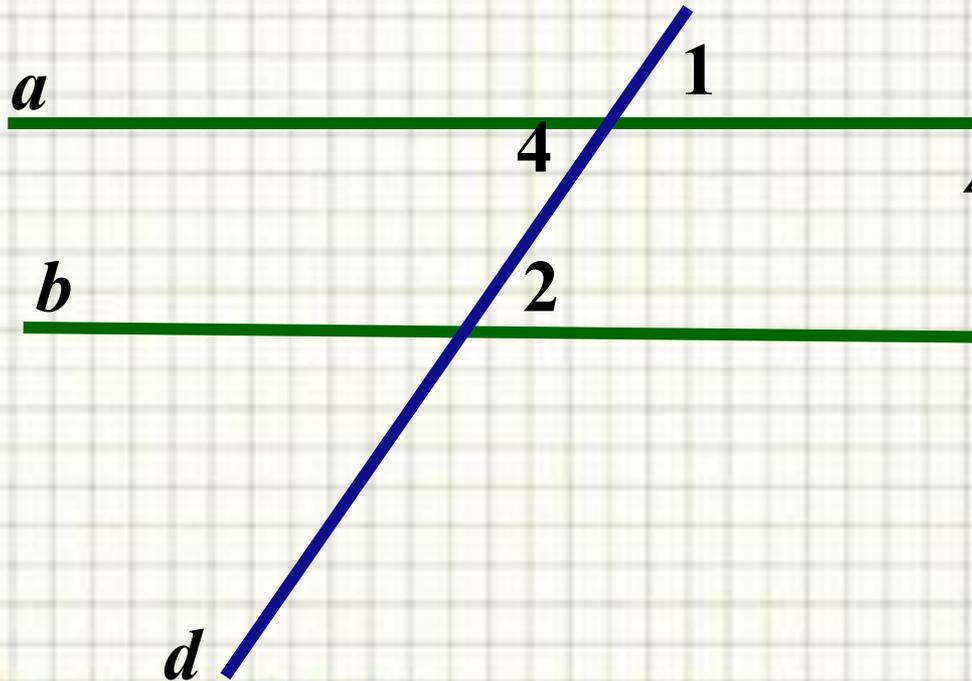
Подсказка 1

Подсказка 2

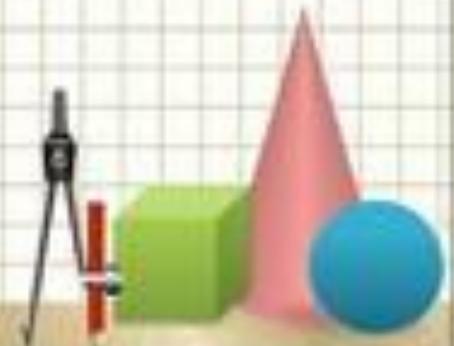


Дано: $\angle 1 = \angle 2$

Доказать: $a \parallel b$

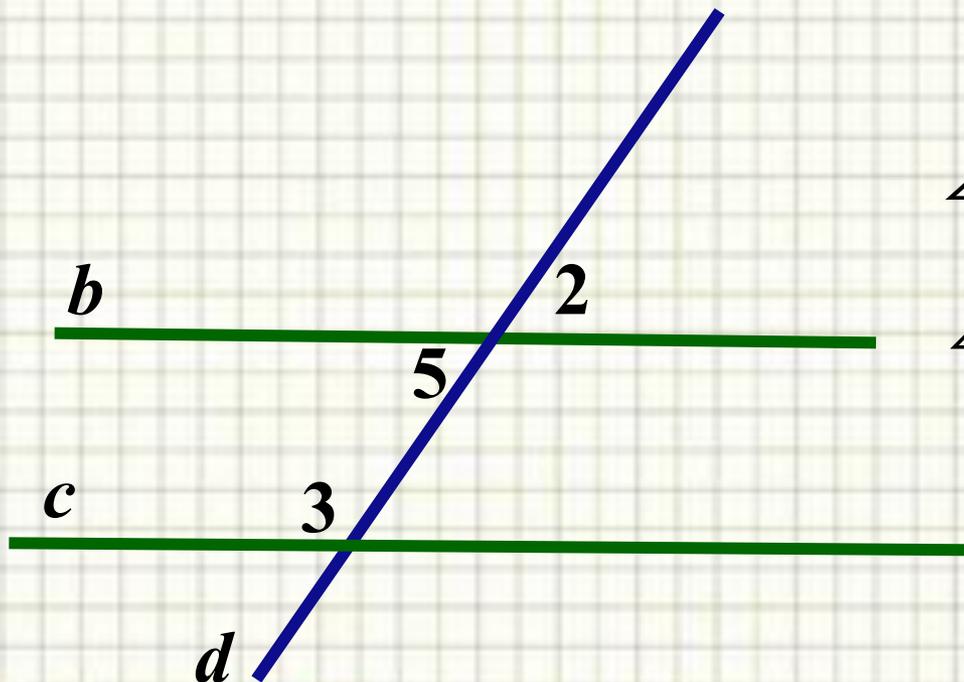


$\angle 1 = \angle 4$ как вертикальные,
 $\angle 1 = \angle 2$ по условию,
значит, $\angle 4 = \angle 2$, а они
накрест лежащие при
прямых a, b и d - секущей,
значит $a \parallel b$.



Дано: $\angle 2 + \angle 3 = 180^\circ$

Доказать: $b \parallel c$



$\angle 2 = \angle 5$ как вертикальные,

$\angle 2 + \angle 3 = 180^\circ$ по условию,

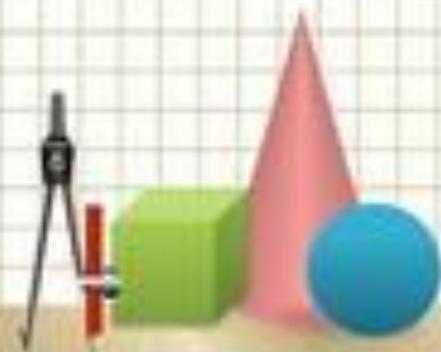
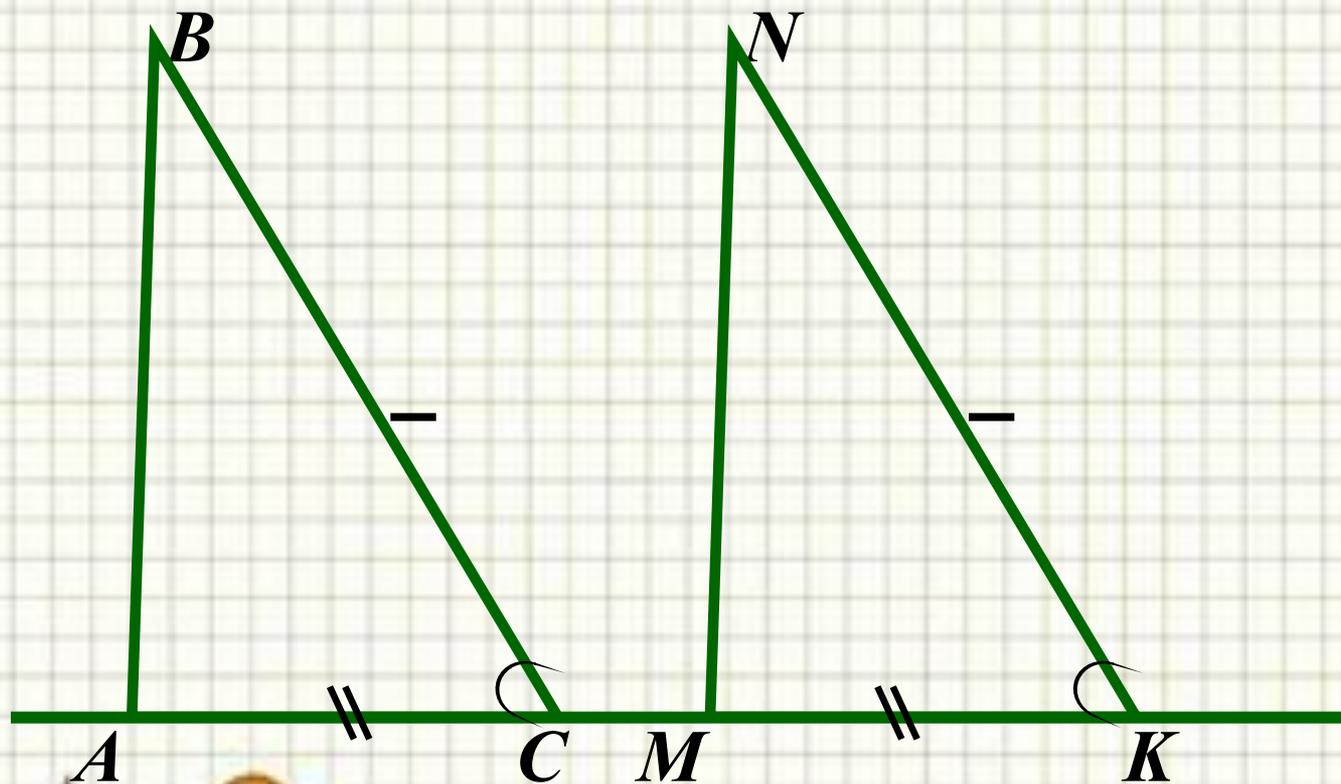
значит, $\angle 3 + \angle 5 = 180^\circ$

а они односторонние при
прямых c , b и d - секущей,
значит $c \parallel b$.



7.

Доказать: 1) $BC \parallel NK$, 2) $AB \parallel MN$



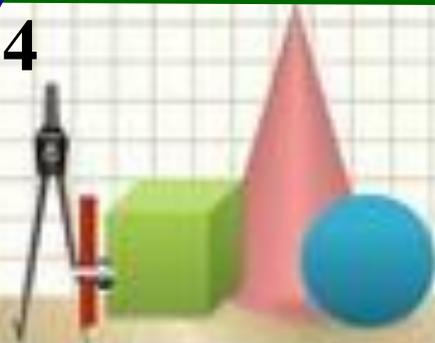
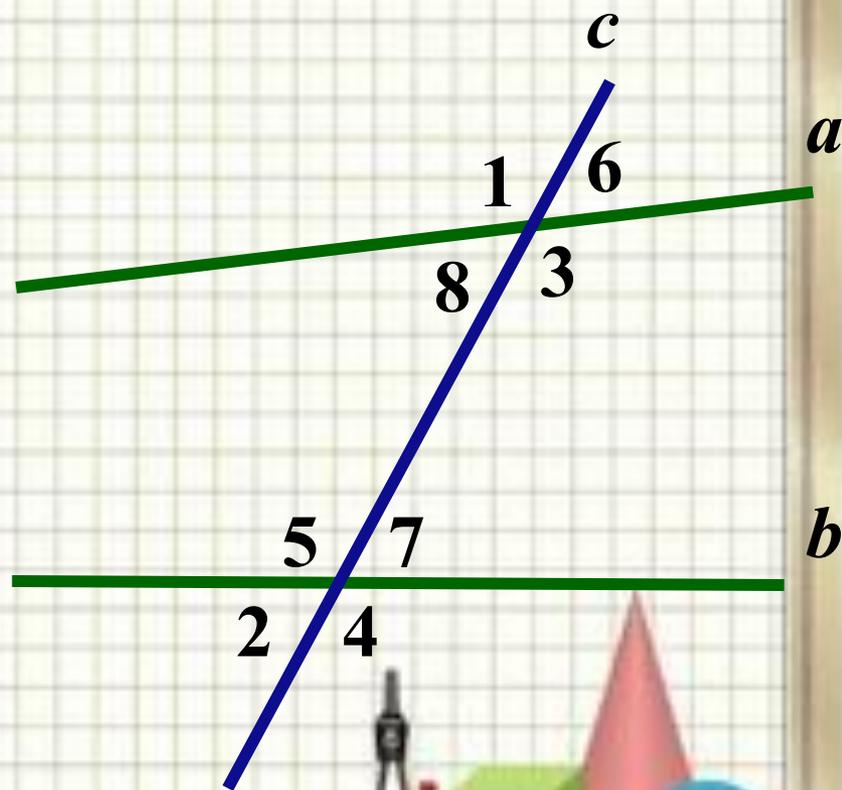
$a \parallel b$, если

$$\angle 8 + \angle 5 = 180^{\circ}$$

$$\angle 7 = \angle 6$$

$$\angle 8 + \angle 3 = 180^{\circ}$$

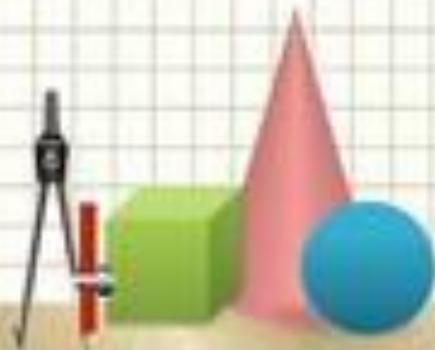
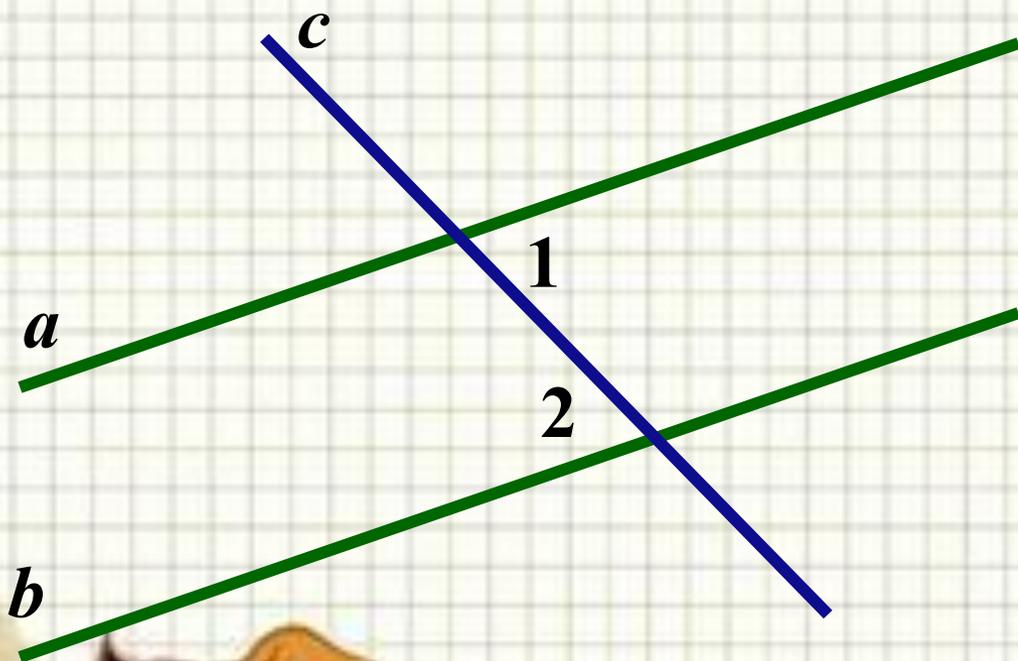
$$\angle 5 = \angle 3$$



1*.

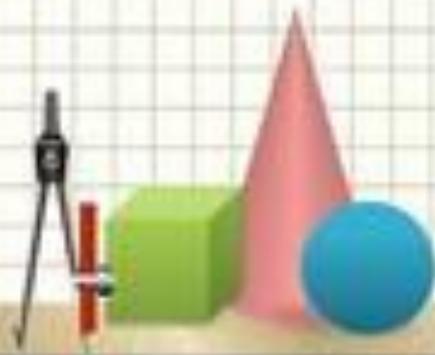
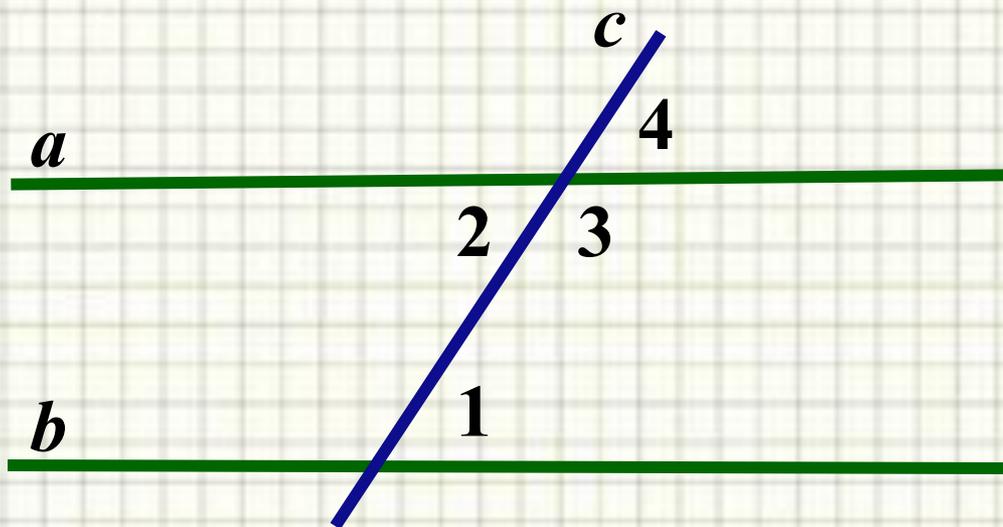
Дано: $a \parallel b$, $\angle 1 = 32^\circ$

Доказать: $\angle 2 = 32^\circ$

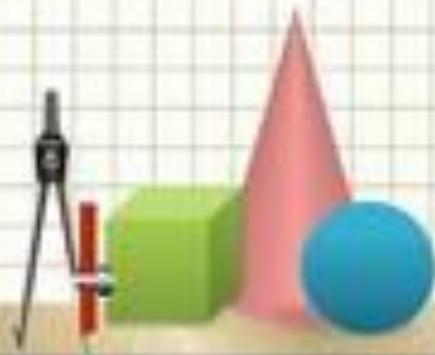
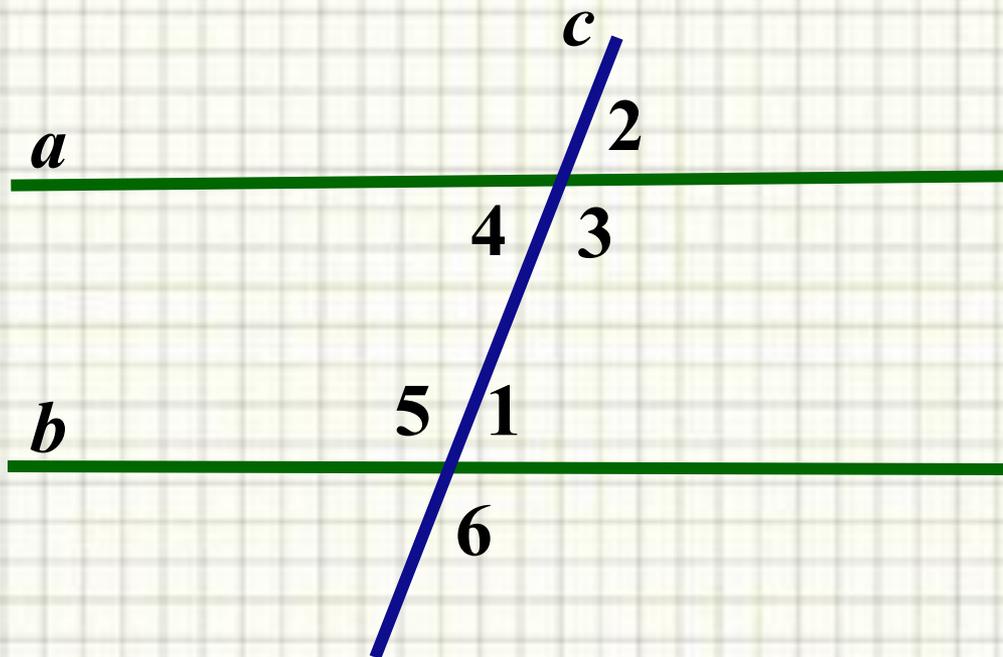


8. Дано: $a \parallel b$, $\angle 1 = 75^\circ$

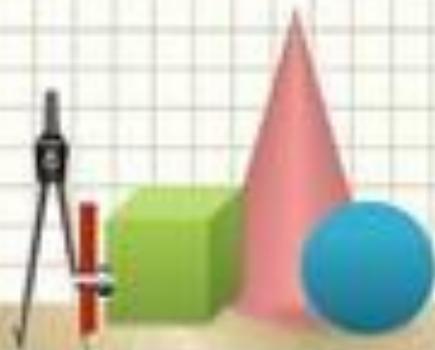
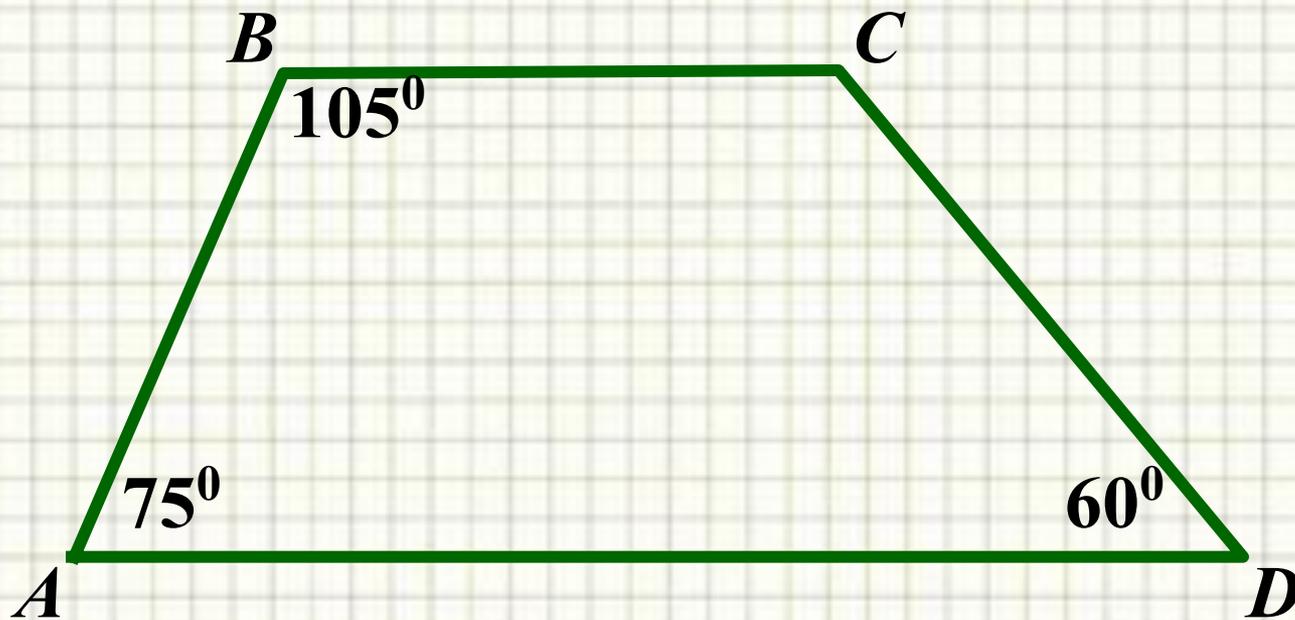
Найти: $\angle 2, \angle 3, \angle 4$



9. Дано: $a \parallel b$, $\angle 1 + \angle 2 = 160^\circ$
Найти все углы



10. Найти: $\angle C$



Список используемых ресурсов:

1. «Геометрия 7 - 9»: Учеб. для общеобразоват. учреждений / Л.С. Атанасян, В.Ф. Бутузов, С.Б. Кадомцев и др. – 12-е изд.- М.: Просвещение, 2012.
2. Поурочные разработки по геометрии. 7 класс. Гаврилова Н.Ф. – 2-е изд., перераб. и доп. – М.: ВАКО, 2012.

