Банк заданий для промежуточной аттестации по математике 7 класс.

1. Построить график функции:

А) y= x +3

Б) y=2x +3

В) y=2 – x

Г) y= 4 – 2x

Д) y = 5 + 2x

Е) y= 2 – 3x

Ж)y = 3x +1

З)y = 3x – 4

И) y= 4x + 2

К) y= 5 – 3x

2. Упросить выражение:

А) 1. $(a-3)^2-a(5a-6)$; 2. 2a – (a – 2)(a + 2)

Б)1. $(a+2)^2-a(4-7a)$; 2. x^2 – (x +3)(x – 3)

В)1. $a(a+1)-(a-3)^2$; 2. $2a^2$ – (a – 9)(a+9)

Г)1. $30a-5(a+3)^2$; 2. (3a – b)(3a+b)+b^2

Д)1. $(a-3)^2-a(5a-6)$; 2. (5c – 6d)(5c+6d) – $25c^2$

Е)1. $(a-4)^2-2a(5a-4)$; 2.(7m – 10n)(7m + 10n) – $100n^2$

Ж)1. $(a+2)^2-a(4-7a)$; 2. 1 + (3b – 1)(3b + 1)

З)1. $(b-2)^2-4b(2b-1)$; 2. 4 + (6x – 2)(6x + 2)

И)1. $(x-5)^2-x(10+x)$; 2. (8m – 9n)(8m + 9n) – $19n^2$

К)1. $(2-c)^2-c(c+4)$; 2. (4b + 1)(1 – 4b) + $16b^2$

3. Найти значение выражения:

А) $\frac{\left(2^3\cdot 2^4\right)^5}{\left(2\cdot 2^7\right)^4}$

Б) $\frac{\left(2^2\cdot 2^3\right)^4}{\left(2\cdot 2^5\right)^3}$

В) $\frac{\left(2^2\cdot 2^4\right)^7}{\left(2\cdot 2^6\right)^6}$

Г) $\frac{\left(2^2\cdot 2^6\right)^5}{\left(2\cdot 2^8\right)^4}$

Д) $\frac{\left(3^2\cdot 3^5\right)^6}{\left(3\cdot 3^7\right)^5}$

Е) $\frac{\left(3^3\cdot 3^5\right)^6}{\left(3\cdot 3^8\right)^5}$

Ж) $\frac{\left(3^2\cdot 3^7\right)^9}{\left(3\cdot 3^9\right)^8}$

З) $\frac{\left(5^3\cdot 5^4\right)^7}{\left(5\cdot 5^7\right)^6}$

И) $\frac{\left(5^2\cdot 5^3\right)^4}{\left(5\cdot 5^5\right)^3}$

К) $\frac{\left(7^2\cdot 7^4\right)^5}{\left(7\cdot 7^6\right)^4}$

4. Решить систему уравнений

А) $\begin{cases} 5x-3y=14; \\ 2x+y=10 \end{cases}$

Б) $\begin{cases} x+5y=35; \\ 3x+2y=27 \end{cases}$

В) $\begin{cases} x+3y=2; \\ 2x+3y=7 \end{cases}$

Г) $\begin{cases} x+y=7; \\ x-3y=-5 \end{cases}$

Д) $\begin{cases} 4x-y=3; \\ x-y=6 \end{cases}$

Е) $\begin{cases} y-x=9; \\ 7y-x=-3 \end{cases}$

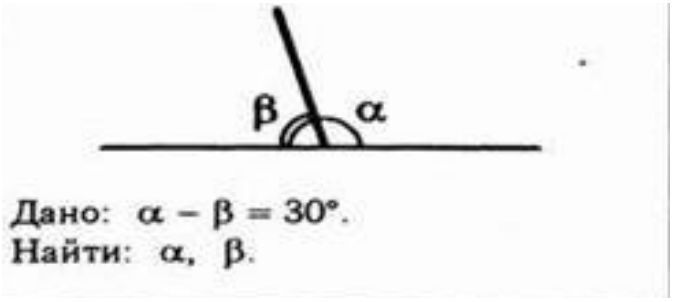
Ж) $\begin{cases} 5x+y=6; \\ x+y=-10 \end{cases}$

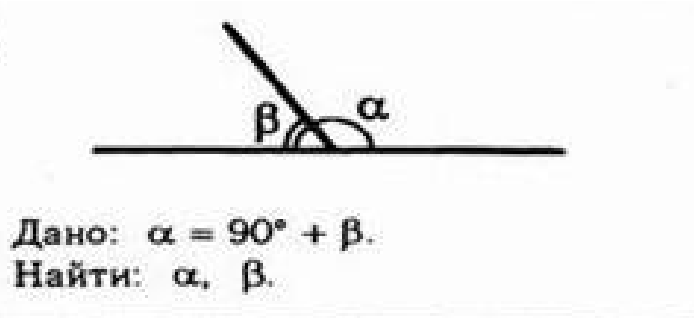
З) $\begin{cases} 4x-7y=30; \\ 4x-5y=90 \end{cases}$

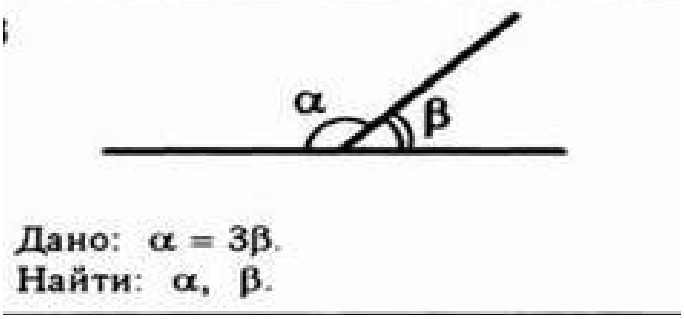
И) $\begin{cases} 2x-3y=9; \\ x+2y=1 \end{cases}$

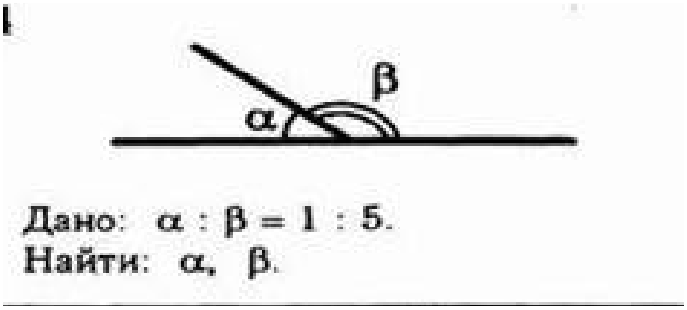
К) $\begin{cases} x-3y=5; \\ 3x+2y=4 \end{cases}$

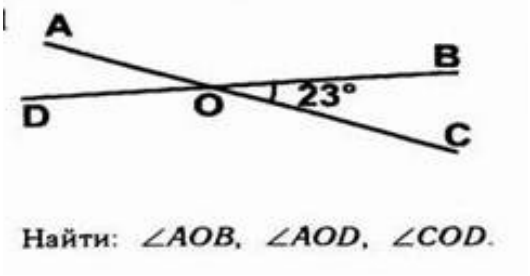
5. Задача по готовому чертежу (смежные и вертикальные углы)

А. 

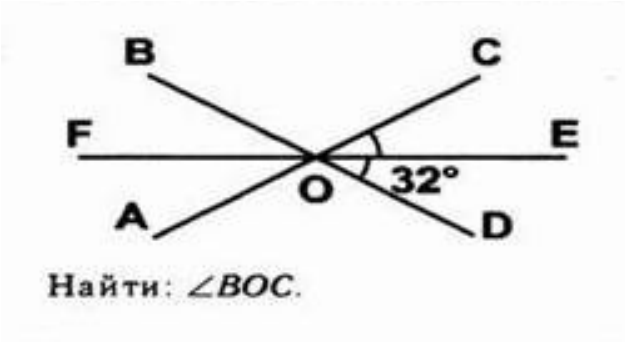
Б. 

В. 

Г. 

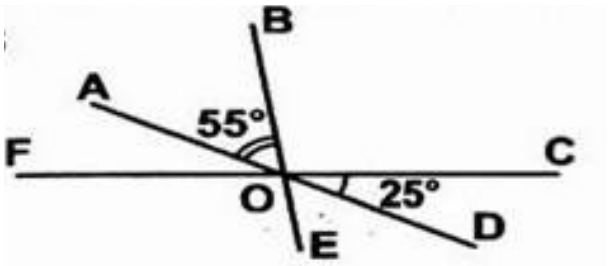
Д. 

Е.



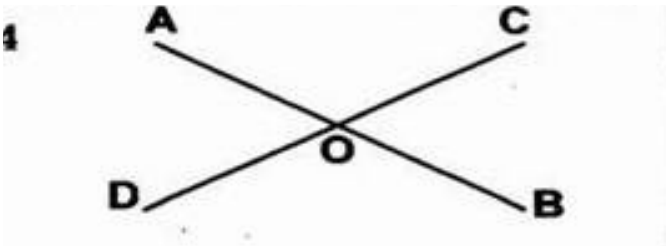
Найти: $\angle BOC$.

Ж.



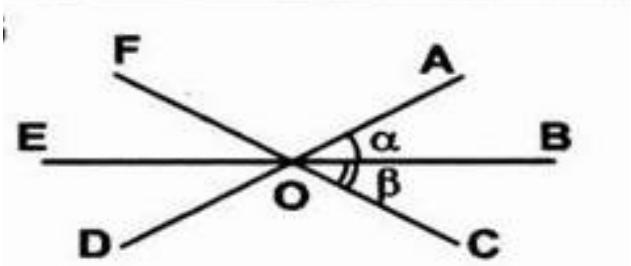
Найти: $\angle FOE$.

З.



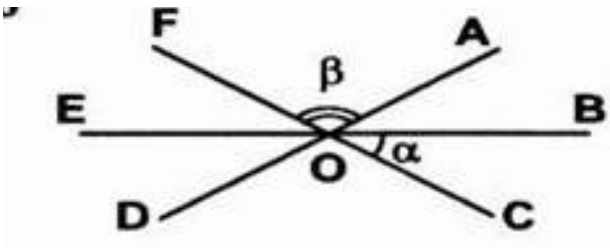
Дано: $\angle AOD + \angle AOC + \angle COB = 210°$.
Найти: $\angle AOD$ и $\angle DOB$.

И.



Найти: $\angle AOF$.

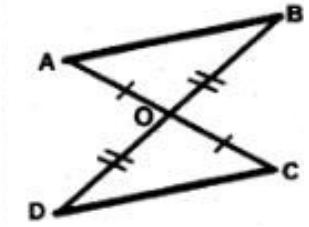
К.



Найти: $\angle EOD$.

6. Найдите пару равных треугольников и доказать их равенство:

1



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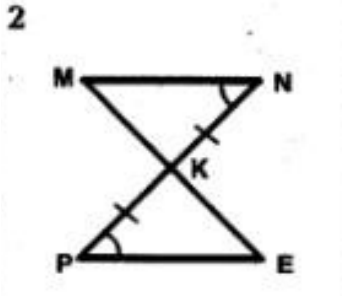

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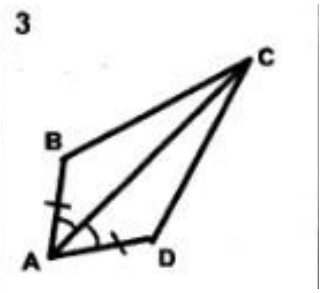

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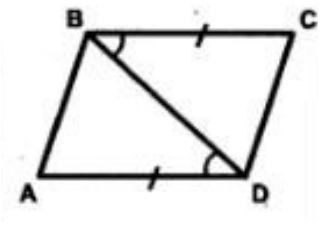

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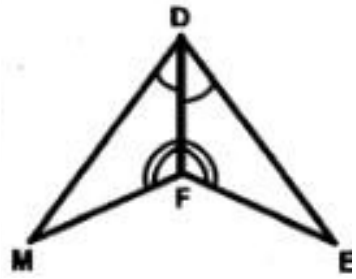

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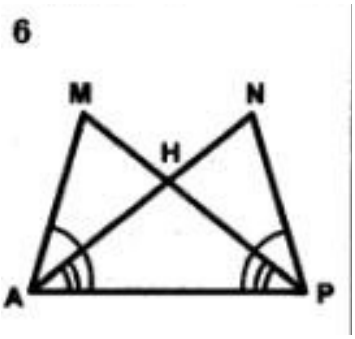

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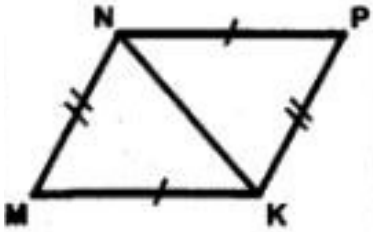

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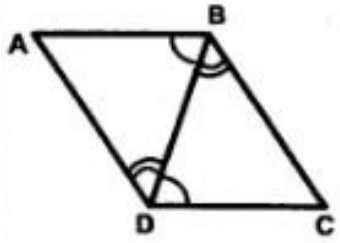
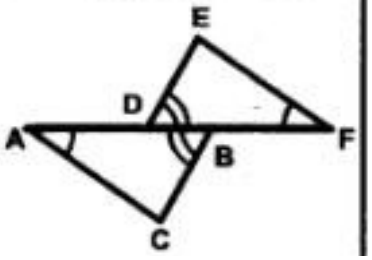
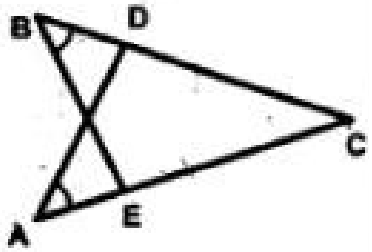


9 Дано: $AD = BF$.



10 Дано: $AC = BC$.



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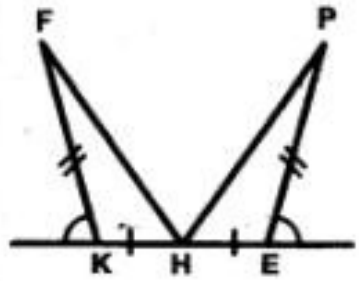

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