

25 2009 .

**ВАРИАНТ 3**

**УВАЖАЕМИ УЧЕНИЦИ,**

50 .

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.

,

**X**

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(A)

~~(B)~~

(B)

(Г)

,

,

,

:

(A)

~~(B)~~

~~(B)~~

(Г)

!

,

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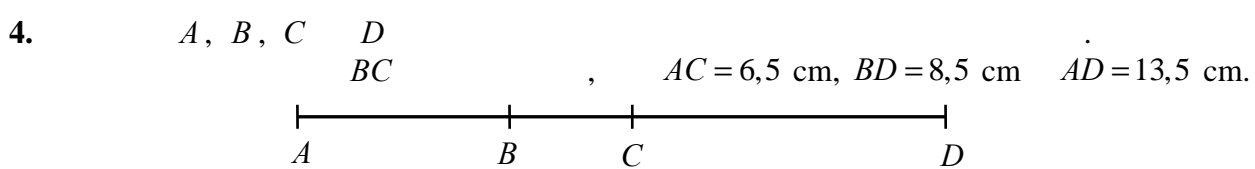
.

**ПОЖЕЛАВАМЕ ВИ УСПЕШНА РАБОТА!**

1.  $5,35 : \frac{535}{10} = 53\frac{1}{2} = 53\frac{7}{20} = 5\frac{7}{20}$

2.  $3 \cdot \frac{3}{5} = 1,80 = 1,20 + 0,60$

3.  $\frac{1}{3} + \frac{2}{6} + \frac{3}{9} + \frac{4}{12} = \frac{4}{3} = \frac{10}{3} - \frac{6}{3} = \frac{10}{3} - 2$



(Отговора запишете в листа за отговори.)

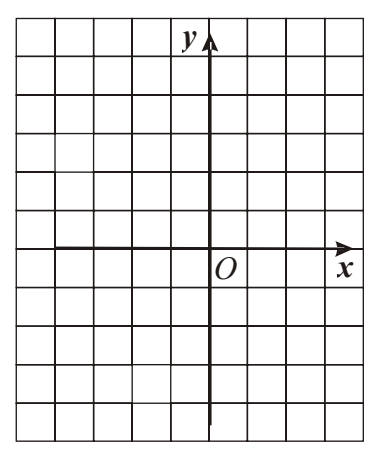
5.  $10$  cm,  $40$  cm,  $?$

$) 50\%$   $) 35\%$   $) 30\%$   $) 25\%$

6.  $A(-2;-1), B(1;0), C(-2;4)$

$) 15$   $) 10,5$

$) 7,5$   $) 3$



7.  $5 \cdot 10 = 50 = 5 \cdot 10 = 5 \cdot 10 = 5 \cdot 10$

$) 20$   $) 10$   $) 15$   $) 25$

8.  $?$

$) (-5)^4 - 5 \cdot 5^2 > 0$   $) |-3| \cdot |-9| > 0$   $) -5^4 + 5 \cdot 5^2 > 0$   $) -5 \cdot |-7| < 0$

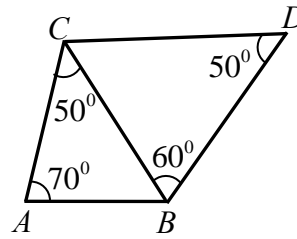
9.  $a^5 - a^3(a^2 + a)$  :

)

)

10.  $AB, BC, AC,$   
 $CD, BD$  - ?

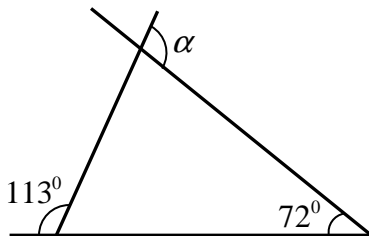
)  $BC$  )  $AC$  )  $CD$  )  $BD$



11.  $9y - 100y^3$   $y = 0,3$ .

) -91 ) 2,7 ) 0 ) 2,43

12.  $\alpha$ .

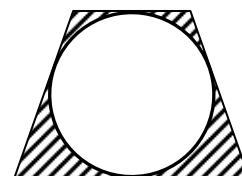


(Отговора запишете в листа за отговори.)

13. ?

(Отговора запишете в листа за отговори.)

14. 8 cm 15 cm 5 cm,



(Отговора запишете в листа за отговори.)

15.  $6(2y-5) - 12(2y-5)(y+5)$

)  $-6(2y-5)(2y+9)$  )  $6(2y-5)(11-2y)$

)  $-12(2y-5)(y+5)$  )  $-12(2y-5)(y+2)$

16. 14 8 ?

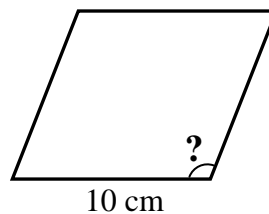
)

)

)

)

17. 10 cm : 50 cm<sup>2</sup>,  
 ) 105° ) 120°  
 ) 135° ) 150°



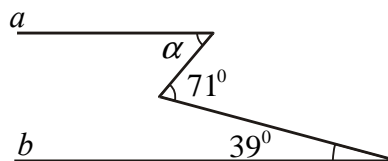
18.  $|4-x|=6$  :  
 ) (-5; 9] ) [-2; 10) ) [11; +∞) ) [-2; 7]

19. 25%, - ? 20%.

(Отговора запишете в листа за отговори.)

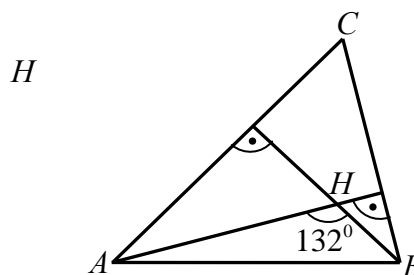
20.  $\frac{b}{a}$ ,  $\frac{a}{b}$ ,  $\frac{a}{4}$ ,  $\frac{a}{b}$ .  
 ) 0,4 ) 0,04 ) 0,25 ) 1

21.  $a \cdot b$ ,  $\alpha$  :  
 ) 110° ) 30°  
 ) 32° ) 64°



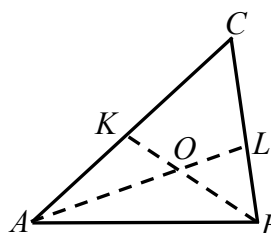
22.  $9x^2 - (2x-1)^2 = 0$ ,  
 ) 4 )  $-\frac{4}{5}$  ) 5 )  $\frac{4}{5}$

23.  $\triangle ABC$ ,  $\angle AHB = 132^\circ$ .  
 ) 45° ) 66° ) 75° ) 78°



24.  $\frac{3}{4}x + 3 \geq 0, 4x + 2$ .  
 (Отговора запишете в листа за отговори.)

25.  $\triangle ABC$ ,  $AL$  ( $L \in BC$ )  $BK$  ( $K \in AC$ ),  $O$ .  
 $\angle ACB$ ,  $\angle BOL$   
 $\angle AOB$  13:23.  
 ) 30° ) 36° ) 45° ) 50°



26.  $25 - \dots : \dots$   
 9  6  4  5

27.  $11 - \dots$   
 $1,4 - \dots$   
 $5 - \dots, 6 - \dots, 7 - \dots$   
 12  13  14  14

28.  $\triangle ABC$  ( $\angle ACB = 90^\circ$ ),  $AC > BC$ .  
 $AB = 6$  cm  $M$   $AB$ ,  
 $\triangle AMC$   $A$ .

(Отговора запишете в листа за отговори.)

29.  $60\%$   $4$   
 $3:5$   
 30%  35%  40%  45%

30.  $10 - \dots$   
 $24$   
 $2 - \dots$

31.  $10\%$   $10\%$   
 $100$   $98$   $1$   $?$

(Отговора запишете в листа за отговори.)

32.  $11$   $21$   
 $4 - \dots$   
 40  34  36  38

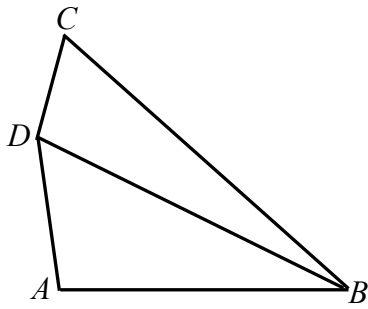
33.  $a = 5$  dm,  $b = 7$  dm  $c = 9$  dm  
 21  35  45  63

34.  $?$   
 30  35  40  506

35.

$ABCD$   
 $BD$

$AB = 8$  cm,  $BC = 16$  cm,  $CD = 4$  cm  $AD = 6$  cm.



(Отговора запишете в листа за отговори.)

36.

, 1 5.  
:  
3?

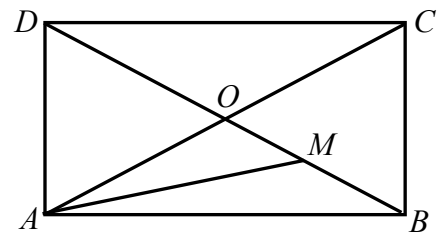
37.

$$(x-4)(x-3) \geq 4 + (3-x)^2.$$

- )  $x \in (-\infty; -1)$  )  $x \in (-\infty; -1]$  )  $x \in (-1; \infty)$  )  $x \in [-1; \infty)$

38.

$ABCD$   
 $O$   
 $BO$ ,  $M$   
 $\Delta AMO$ ?



- ) 12,5 ) 15 ) 20,5 ) 25

39.

$k$   $(k+1)x+1=k^2$

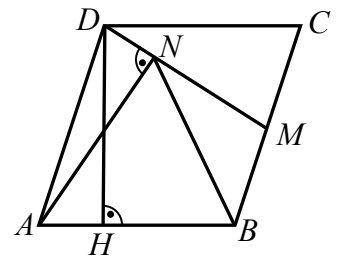
$$\frac{1}{2}(1-x) \geq x+0,5?$$

- )  $k \in (-\infty; 1]$  )  $k \in (-\infty; -1) \cup (-1; 1]$  )  $k \in (-\infty; -1) \cup [-1; 1)$  )  $k \neq 0$

40.

$M$   $ABCD$   $DH = 6$  cm ( $H \in AB$ ).  
 $BC$   $AN \perp DM$  ( $N \in DM$ ).

$BN = 4,4$  cm.

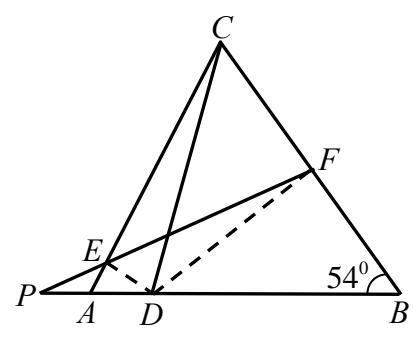


- ) 26,4 ) 22,4 ) 18,8 ) 16,4

41.  $3 : A, B \ B.$   $A$  ,  $B$   
 $B -$  ,  
 $:$   
 $-$  !  
 $-$  ?  
 $-$   $B.$  ?  
 )  $A$  )  $B$  )  $B$  )

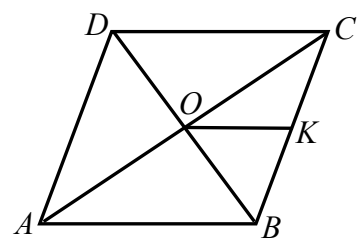
42. , 80% , 52%  
 ) 35% ) 52% ) 42% ) 40%

43.  $\triangle ABC$ ,  $AB > AC$   
 $\angle ABC = 54^\circ$ .  $D$   $AB$  ,  
 $CD = BD$ ,  $\angle ADC$   
 $\angle BDC$   $AC$   $BC$   
 $E$   $F$ .  $EF$   
 $AB$   $P$   $2PD = EF$ ,  
 $\angle PED$ .  
 )  $100^\circ$  )  $102^\circ$  )  $108^\circ$  )  $120^\circ$

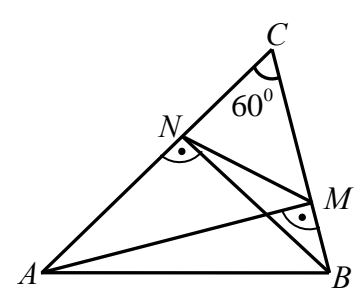


44.  $5 \ 6$  .  $154$   
 $- 175$  ,  
 ?  
 ) - 26 ) 26 ) 30 ) 30

45.  $ABCD$   $AB = 8 \text{ cm}$   
 $AC$   $BD$   $O$ .  
 $ABKO$ ,  $K$   $BC$   
 $\angle COK : \angle BOK = 1:5$ .  
 ) 16 ) 12 ) 24 ) 18



46.  $\triangle ABC$   $\angle ACB = 60^\circ$ .  
 $\triangle ABC$   
 $\triangle NMC$  11 cm,  
 $AM$  ( $M \in BC$ )  $BN$  ( $N \in AC$ )  
 $BC$   $AC$   
 $\triangle ABC$ .  
 ) 22 ) 28 ) 30 ) 33



47.

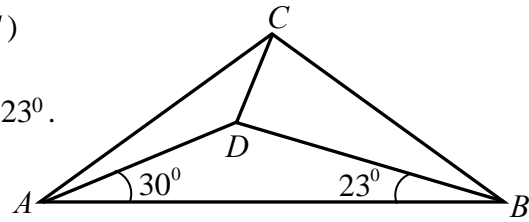
- ) - 12 ) 12 ) 67 ) - 67

48.

- $xy = 105,$  :  
 ) 35 ) 39 ) 51 ) 119

49.

$\triangle ABC$  ( $AC = BC$ )  
 $\angle ACB = 106^\circ$ .  
 $D$   
 $\angle DAB = 30^\circ$   $\angle ABD = 23^\circ$ .  
 $\angle BDC$ .



- )  $90^\circ$  )  $87^\circ$  )  $85^\circ$  )  $83^\circ$

50.

12. 13. , 1? :  
 ) 2 ) 3 ) 4 5 ) 6

