

Ovdje

Ovdje su linkovi na rješenja svih zadataka

Iz tesat.BR.1.-šk.god. 2011-13.

video s postupcima rješavanja svih zadataka:

Bez obzira na to što u vide rješenjima pišu stari brojevi zadataka to su sada redom posložena rješenja prema zadacima koji su u testu BR.1 – šk.god.2011.-13.



- [zadatak br. 1.](#) - YouTube
- [zadatak br. 2.](#) - YouTube
- [zadatak br. 3.](#) - YouTube
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- [zadatak br. 6.a\)](#) - YouTube
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SLIKE rješenja svih zadataka su od str.br.2 na dalje

Rj.zad.br.1

$$\begin{array}{l} \frac{2x - 3y}{2} = -3 \quad / \cdot 2 \\ \frac{5y - x}{4} = \frac{17}{2} \quad / \cdot 4 \\ \hline 2x - 3y = -6 \\ 5y - x = 68 \quad / \cdot 2 \\ \hline 2x - 3y = -6 \\ -2x + 10y = 136 \\ \hline 7y = 130 \quad / : 7 \\ y = \frac{130}{7} \end{array}$$
$$\begin{array}{l} y = \frac{62}{7} \\ 2x - 3y = -6 \\ 2x - 3 \cdot \frac{62}{7} = -6 \\ 2x - \frac{186}{7} = -6 \\ 2x = \frac{186}{7} - 6 \\ 2x = \frac{186 - 42}{7} \\ 2x = \frac{144}{7} \quad / : 2 \\ x = \frac{72}{7} \end{array}$$

2. Za Zadatak br.2 pogledajte video uputu odmah će sve biti jasnije:  
 - [zadatak br. 2.](#) - YouTube

2. a)

$$f(x) = 2x + 1$$

$$\downarrow$$

$$y = 2x + 1$$

x	0	1	2
y	1	3	5

(0,1) (1,3) (2,5)

za  $x=0$

$$y = 2x + 1 = 2 \cdot 0 + 1 = 0 + 1 = 1$$

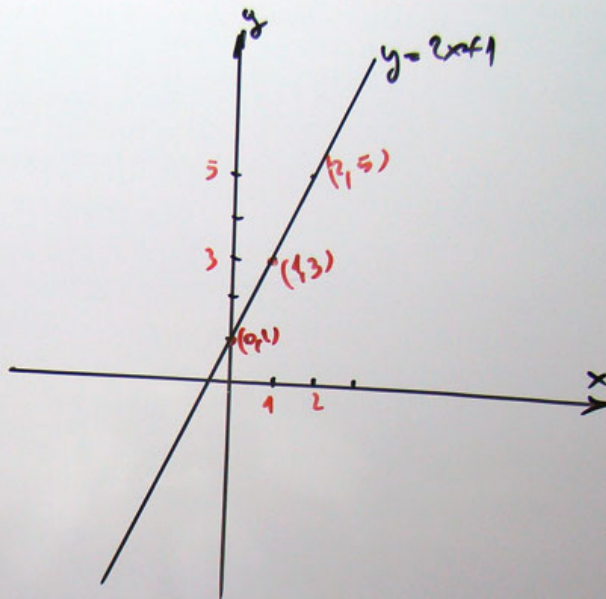
$$y = 1$$

za  $x=1$

$$y = 2 \cdot 1 + 1 = 2 \cdot 1 + 1 = 3$$

za  $x=2$

$$y = 2 \cdot 2 + 1 = 5$$



2. b)

$$f(x) = -3x + 2$$

$$\downarrow$$

$$y = -3x + 2$$

x	0	1	-1
y	2	-1	5

A(0,2) B(1,-1) C(-1,5)

za  $x=0$

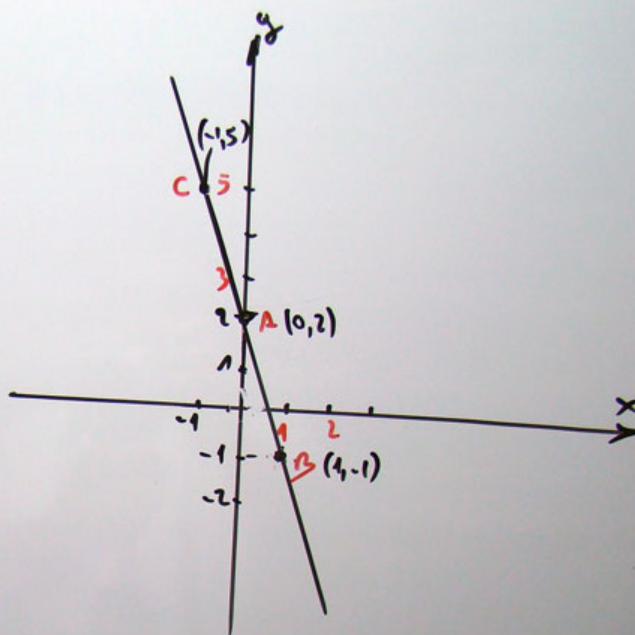
$$y = -3x + 2 = -3 \cdot 0 + 2 = 0 + 2 = 2$$

za  $x=1$

$$y = -3 \cdot 1 + 2 = -3 + 2 = -1$$

za  $x=-1$

$$y = -3 \cdot (-1) + 2 = 3 + 2 = 5$$



$$\begin{aligned}
 3. \quad & \left[ \frac{3}{4} - \left(\frac{1}{3}\right)^2 : \frac{2}{3} \right] : \left( \frac{1}{8} : \frac{1}{2} - \frac{1}{3} \right) = \\
 & = \left[ \frac{3}{4} - \frac{1}{9} : \frac{2}{3} \right] : \left( \frac{1}{8} \cdot \frac{2}{1} - \frac{1}{3} \right) = \\
 & = \left[ \frac{3}{4} - \frac{1}{9} \cdot \frac{2}{3} \right] : \left( \frac{1}{4} - \frac{1}{3} \right) = \\
 & = \left[ \frac{3}{4} - \frac{1}{6} \right] : \left( \frac{1 \cdot 3 - 1 \cdot 4}{4 \cdot 3} \right) = \\
 & = \left( \frac{3 \cdot 3 - 1 \cdot 2}{12} \right) : \frac{3-4}{12} = \frac{9-2}{12} : \left( -\frac{1}{12} \right) = \frac{7}{12} : \left( -\frac{1}{12} \right) \\
 & = -7
 \end{aligned}$$

$$\begin{aligned}
 4. \quad & (x-3)(x+3) = 16 \\
 & x^2 - 3^2 = 16 \\
 & x^2 - 9 - 16 = 0 \\
 & x^2 - 25 = 0 \\
 & a^2 - b^2 \leftarrow x^2 - 5^2 = 0 \\
 & (x-5)(x+5) = 0 \\
 & \begin{array}{l} \downarrow \\ x-5=0 \\ x_1 = 5 \end{array} \quad \begin{array}{l} \downarrow \\ x+5=0 \\ x_2 = -5 \end{array} \\
 & (x-3)(x+3) = 16 \\
 & x^2 - 3^2 = 16 \\
 & x^2 - 9 = 16 \\
 & x^2 = 16 + 9 \\
 & x^2 = 25 \\
 & \downarrow \\
 & x = \pm \sqrt{25} \\
 & x = \pm 5 \\
 & x_1 = 5 \quad x_2 = -5
 \end{aligned}$$

5. a)  $\sqrt{49 \cdot 36} = \sqrt{49} \cdot \sqrt{36} =$  primjenimo pravilo:  $\sqrt{a \cdot b} = \sqrt{a} \cdot \sqrt{b}$   
 $= \sqrt{7^2} \cdot \sqrt{6^2} =$   
 $= 7 \cdot 6 = 42$

b)  $\sqrt{\frac{25}{64}} = \frac{\sqrt{25}}{\sqrt{64}} = \frac{\sqrt{5^2}}{\sqrt{8^2}} = \frac{5}{8}$  koristili smo pravilo:  $\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$

6. a)

$$(a + b)^2 = a^2 + 2 \cdot a \cdot b + b^2$$

$$(\underbrace{2x}_a + \underbrace{3y}_b)^2 = (2x)^2 + 2 \cdot 2x \cdot 3y + (3y)^2 =$$

$$= 2^2 \cdot x^2 + 12xy + 3^2 y^2 =$$

$$= 4x^2 + 12xy + 9y^2$$

$(2x)^2 = 2^2 \cdot x^2$   
 $(a \cdot b)^n = a^n \cdot b^n$

6. Izračunaj:

b)  $\left(\frac{3}{2}x - 2\right)^2 = \left(\frac{3}{2}x\right)^2 - 2 \cdot \frac{3}{2}x \cdot 2 + 2^2 =$  primjenimo pravilo:  
 $(a - b)^2 = a^2 - 2 \cdot a \cdot b + b^2$

$$= \frac{3^2}{2^2}x^2 - \cancel{2} \cdot \frac{3}{\cancel{2}}x \cdot 2 + 4 =$$

$$= \frac{9}{4}x^2 - 6x + 4$$

7. a)

$$\begin{aligned}(2x-3)(x+2) &= 2x \cdot (x+2) - 3(x+2) = \\ &= 2x^2 + 4x - 3x - 6 = \\ &= 2x^2 + x - 6\end{aligned}$$

$$\begin{aligned}(a-b) \cdot (a+b) &= a^2 - b^2 \\ \text{b) } (3x-2y)(3x+2y) &= (3x)^2 - (2y)^2 = \\ &= 3^2 x^2 - 2^2 y^2 = \\ &= 9x^2 - 4y^2\end{aligned}$$

Video uputa uz 7. zadatka: <https://www.youtube.com/watch?v=NRdYj4K5URg>  
to je sad 7. zadatak bio je 6. !!! 😊

8. zadatak samo u video varijanti nema veze što u videu piše da je to 10. zadatak  
[zadatak br. 8.](#) – YouTube

[zadatak br. 9.](#) - YouTube

9.

$$f(x) = x^2 + 2x - 1$$

$$\begin{aligned}f(2) - f(\sqrt{2}) &= 7 - (1 + 2\sqrt{2}) = 7 - 1 - 2\sqrt{2} = \\ &= 6 - 2\sqrt{2} \\ &= 2 \cdot (3 - \sqrt{2})\end{aligned}$$

$$f(2) \stackrel{x=2}{=} 2^2 + 2 \cdot 2 - 1 = 4 + 4 - 1 = 7$$

$$f(\sqrt{2}) = \sqrt{2}^2 + 2 \cdot \sqrt{2} - 1 = 2 + 2\sqrt{2} - 1 = 1 + 2\sqrt{2}$$

10. a)

$$3\sqrt{3} + 4\sqrt{3} + 9\sqrt{3} =$$

$$= (3 + 4 + 9) \cdot \sqrt{3} =$$

$$= 16\sqrt{3}$$

$$b) 5\sqrt{2} - 3\sqrt{8} + 2\sqrt{32} =$$

$$= 5\sqrt{2} - 3 \cdot \sqrt{4 \cdot 2} + 2\sqrt{16 \cdot 2} =$$

$$= 5\sqrt{2} - 3 \cdot \sqrt{4} \cdot \sqrt{2} + 2\sqrt{16} \cdot \sqrt{2} =$$

$$= 5\sqrt{2} - 3 \cdot 2\sqrt{2} + 2 \cdot 4 \cdot \sqrt{2} =$$

$$= 5\sqrt{2} - 6\sqrt{2} + 8\sqrt{2} =$$

$$= (5 - 6 + 8) \cdot \sqrt{2} = 7\sqrt{2}$$

Za zadatke 11., 12. i 13. trenutno su dostupna samo video rješenja

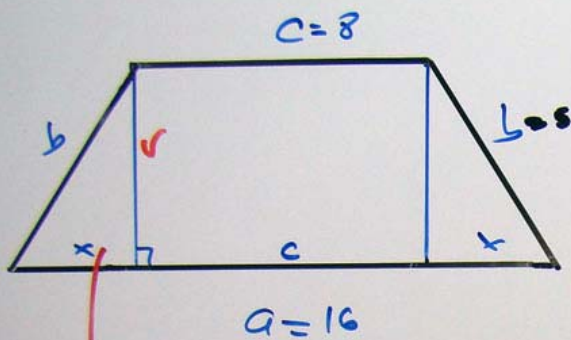
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14.

$$a=16, c=8, b=5$$

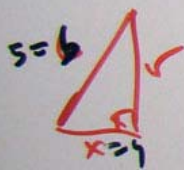


$$P = \frac{a+c}{2} \cdot v, \quad v=3$$

$$P = \frac{16+8}{2} \cdot 3$$

$$P = \frac{24}{2} \cdot 3 = 12 \cdot 3$$

$$P = 36 \text{ m}^2$$



$$\begin{aligned} a &= c + x + x \\ 16 &= 8 + 2x \\ 16 - 8 &= 2x \\ 2x &= 8 \quad | :2 \\ x &= 4 \end{aligned}$$

$$\begin{aligned} v^2 &= b^2 - x^2 \\ v^2 &= 5^2 - 4^2 \\ v^2 &= 25 - 16 \\ v^2 &= 9 \quad | \sqrt{\quad} \\ v &= 3 \end{aligned}$$

Video uputa uz : [zadatak br. 14.](#) - YouTube

15. 30% od 300 =?

$$\frac{30}{100} \cdot 300 = \frac{30 \cdot 3 \cdot 100}{100} = \frac{30 \cdot 3 \cdot \cancel{100}}{\cancel{100}} = 30 \cdot 3 = 90$$

Dakle 30% od 300 = 90

16. zadatak:

16.

$$\begin{aligned} 2(x-3) - (x+2) &> 3(x-4) \\ 2x-6 - x-2 &> 3x-12 \\ 2x-x-3x &> 6+2-12 \\ -2x &> -4 \quad /:(-2) \\ x &< 2 \end{aligned}$$



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**UNIVERZALNA ZBIRKA POTPUNO RIJEŠENIH ZADATAKA ZA PRVI RAZRED**  
**SKUP REALNIH BROJEVA**  
**POTENCIJE - ALGEBARSKI IZRAZI – ALGEBARSKI RAZLOMCI**



**Priručnik za samostalno učenje:**  
za gimnazije , za tehničke škole  
i za sve ostale škole

<http://www.mim-sraga.com/Zbirka-potpuno-rijesenih-zad-Mat-1-ALG-RAZL.htm>