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1. RIJEŠI JEDNADŽBE

a) $\frac{x^2}{5} + 5 = 0$ b) $4x^2 + 1 = 0$ c) $4x^2 - 4x - 3 = 0$

2. IZRAČUNAJ

a) $36x^4 - 94x^2 + 36 = 0$ b) $(k-4)^4 - 13(k-4)^2 + 36 = 0$

3. IZRAČUNAJ

$2\sqrt{x+2} - \sqrt{3x-2} = 2$

4. RIJEŠI JEDNADŽBE

a) $\frac{12}{x^2+8x+16} - \frac{1}{x^2-8x+16} + \frac{1}{x^2-16} = 0$

b) $\frac{21}{x^2-4x+10} - x^2 + 4 = 0$

5. RIJEŠI SUSTAVE JEDNADŽBI

a) $\begin{cases} xy = 12 \\ x - 2y - 2 = 0 \end{cases}$

6. IZRAČUNAJ DISKRIMINANTU

a) $3x^2 - 2x - 1 = 0$ b) $16x^2 - 12x + 1 = 0$

4. RIJEŠI JEDNADŽBU

$9x^2 - 3x = 0$

8. RIJEŠU POMOĆU VIETOVIH FORMULA

a) $x^2 + 5x + 6 = 0$

9. ~~DUŽINE KATETA~~

KOLIKO ĆE VREMENA TRAJATI SLOBODNI PAD KAMENČIĆA S VISINE 50 METARA ODGOVORI REČENICOM.

2B
CMAK
ANAB

**1.** a) $\frac{x^2}{5} + 5 = 0 \mid \cdot 5$

$x^2 + 25 = 0$

$x^2 = 25 \mid \sqrt{}$

$x = \pm 25$ (1)

b) $4x^2 + 1 = 0$

$4x^2 = 1 \mid :4$

$x^2 = \frac{1}{4} \mid \sqrt{}$

$x = \pm \frac{1}{2}$ (1)

c) $4x^2 - 4x - 3 = 0$

$x_{1,2} = \frac{4 \pm \sqrt{16 + 48}}{8}$

$x_{1,2} = \frac{4 \pm 8}{8}$ z

$x_1 = \frac{3}{2}$

$x_2 = -\frac{1}{2}$ (1)

**2.** a) $36x^4 - 97x^2 + 36 = 0$

$t = x^2$

$36t^2 - 97t + 36 = 0$

$t_{1,2} = \frac{97 \pm \sqrt{9409 - 5184}}{72}$

$t_{1,2} = \frac{97 \pm \sqrt{4225}}{72}$

$t_{1,2} = \frac{97 \pm 65}{72}$

$t_1 = \frac{9}{4}$

$t_2 = \frac{4}{9}$ (3)

$x^2 = \frac{9}{4} \mid \sqrt{}$

$x_{1,2} = \pm \frac{3}{2}$

$x^2 = \frac{4}{9} \mid \sqrt{}$

$x = \pm \frac{4}{3}$

b) $(k-7)^4 - 13(k-7)^2 + 36 = 0$

$t = (k-7)^2$

$t^2 - 13t + 36 = 0$

$t_{1,2} = \frac{13 \pm \sqrt{169 - 144}}{2}$

$t_{1,2} = \frac{13 \pm 5}{2}$

$t_1 = 9$

$t_2 = 4$ (2)

$(k-7)^2 = 9 \mid \sqrt{}$

$k - 7 = \pm 3$

$k_1 = 10$

$k_2 = 4$

$(k-7)^2 = 4 \mid \sqrt{}$

$k - 7 = \pm 2$

$k_3 = 9$

$k_4 = 5$ (2)

**3.** $2\sqrt{x+2} - \sqrt{3x-2} = 2$

$2\sqrt{x+2} = 2 + \sqrt{3x-2} \mid ^2$

$4 + x + 2 = (2 + \sqrt{3x-2})^2$

$4x + 8 = 4 + 4\sqrt{3x-2} + 3x - 2$

$4\sqrt{3x-2} = 4 + 3x - 2 - 4x - 8 - x$

$4\sqrt{3x-2} = x + 6 \mid ^2$

$16(3x-2) = x^2 + 12x + 36$

$48x - 32 = x^2 + 12x + 36$

$x^2 - 36x + 68 = 0$

$x_{1,2} = \frac{36 \pm \sqrt{1296 - 272}}{2}$

$x_{1,2} = \frac{36 \pm 32}{2}$ (4)

$x_1 = 34$

$x_2 = 2$

provjera ...

(9.) $h = 50m$

$h = \frac{1}{2} g t^2$

$h = 4.9 t^2$

$t^2 = \frac{50}{4.9}$

$t^2 = 245$

$t = 15.65s$

(2)

PAD ĆE TRAJATI 15.65s.