

РЕАЛНИ БРОЈЕВИ

<p>1) $\left(\frac{3}{4}\right)^2 = \frac{3}{4} \cdot \frac{3}{4} = \frac{9}{16}$</p> <p>2) $\left(-\frac{5}{6}\right)^2 = \left(-\frac{5}{6}\right) \cdot \left(-\frac{5}{6}\right) = \frac{25}{36}$</p> <p>3) $-\frac{7^2}{8} = -\frac{49}{8}$</p> <p>4) $\left(-5\frac{1}{2}\right)^2 = \left(-\frac{11}{2}\right)^2 = \left(-\frac{11}{2}\right) \cdot \left(-\frac{11}{2}\right) = \frac{121}{4}$</p> <p>5) $0,4^2 = 0,4 \cdot 0,4 = 0,16$</p> <p>6) $-0,8^2 = -0,8 \cdot 0,8 = -0,64$</p>	<p>1) $\sqrt{\frac{144}{25}} = \frac{12}{5} = 2\frac{2}{5}$</p> <p>2) $\frac{\sqrt{144}}{25} = \frac{12}{25}$</p> <p>3) $\sqrt{0,09} = 0,3$</p> <p>4) $\sqrt{0,0016} = 0,04$</p> <p>5) $\sqrt{0,000025} = 0,005$</p> <p>6) $\sqrt{1 + \frac{9}{16}} = \sqrt{\frac{16}{16} + \frac{9}{16}} = \sqrt{\frac{25}{16}} = \frac{5}{4} = 1\frac{1}{4}$</p> <p>7) $\sqrt{1 - \frac{25}{169}} = \sqrt{\frac{169}{169} - \frac{25}{169}} = \sqrt{\frac{144}{169}} = \frac{12}{13}$</p>
<p>1) $\sqrt{\left(-\frac{2}{5}\right)^2} = \left -\frac{2}{5}\right = \frac{2}{5}$</p> <p>2) $\sqrt{(-0,184)^2} = -0,184 = 0,184$</p>	<p>1) $\frac{10}{\sqrt{2}} = \frac{10}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{10\sqrt{2}}{\sqrt{4}} = \frac{10^5 \sqrt{2}}{2^1} = \boxed{5\sqrt{2}}$</p> <p>2) $(3\sqrt{2})^2 = 3^2 \cdot \sqrt{4} = 9 \cdot 2 = \boxed{18}$</p> <p>3) $\sqrt{18} = \sqrt{9 \cdot 2} = \sqrt{9} \cdot \sqrt{2} = 3\sqrt{2} = \boxed{3\sqrt{2}}$</p> <p>4) $\sqrt{75} = \sqrt{25 \cdot 3} = \sqrt{25} \cdot \sqrt{3} = \boxed{5\sqrt{3}}$</p> <p>5) $\sqrt{45} = \sqrt{9 \cdot 5} = \sqrt{9} \cdot \sqrt{5} = 3\sqrt{5} = \boxed{3\sqrt{5}}$</p>

1. Реши једначине:

<p>1) $x^2 = \frac{25}{81}$</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> $x_1 = +\sqrt{\frac{25}{81}}$ $x_1 = \frac{5}{9}$ </div> <div style="text-align: center;"> $x_2 = -\sqrt{\frac{25}{81}}$ $x_2 = -\frac{5}{9}$ </div> </div> <p style="text-align: center;">$x \in \left\{-\frac{5}{9}, \frac{5}{9}\right\}$</p>	<p>2) $x^2 = 0,49$</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> $x_1 = \sqrt{0,49}$ $x_1 = 0,7$ </div> <div style="text-align: center;"> $x_2 = -\sqrt{0,49}$ $x_2 = -0,7$ </div> </div> <p style="text-align: center;">$x \in \{-0,7; 0,7\}$</p>	<p>3) $2x^2 = 50$</p> <p style="text-align: center;">$x^2 = 50 : 2$</p> <p style="text-align: center;">$x^2 = 25$</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> $x_1 = +\sqrt{25}$ </div> <div style="text-align: center;"> $x_2 = -\sqrt{25}$ </div> </div> <p style="text-align: center;">$x \in \{-5, 5\}$</p>
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<p>4) $16x^2 = 49$ $x^2 = 49 : 16$ $x^2 = \frac{49}{16}$</p> <p>$x_1 = +\sqrt{\frac{49}{16}}$ $x_2 = -\sqrt{\frac{49}{16}}$ $x_1 = \frac{7}{4}$ $x_2 = -\frac{7}{4}$</p> <p>$x \in \left\{ -\frac{7}{4}, \frac{7}{4} \right\}$</p>	<p>5) $\frac{1}{4}x^2 = \frac{16}{49}$ $x^2 = \frac{16}{49} : \frac{1}{4}$ $x^2 = \frac{16}{49} \cdot \frac{4}{1}$ $x^2 = \frac{64}{49}$</p> <p>$x_1 = +\sqrt{\frac{64}{49}}$ $x_2 = -\sqrt{\frac{64}{49}}$ $x_1 = \frac{8}{7}$ $x_2 = -\frac{8}{7}$</p> <p>$x \in \left\{ -\frac{8}{7}, \frac{8}{7} \right\}$</p>	<p>6) $\frac{16}{11}x^2 = \frac{11}{4}$ $x^2 = \frac{11}{4} : \frac{16}{11}$ $x^2 = \frac{11}{4} \cdot \frac{11}{16}$ $x^2 = \frac{121}{64}$</p> <p>$x_1 = +\sqrt{\frac{121}{64}}$ $x_2 = -\sqrt{\frac{121}{64}}$ $x_1 = \frac{11}{4}$ $x_2 = -\frac{11}{4}$</p> <p>$x \in \left\{ -\frac{11}{4}, \frac{11}{4} \right\}$</p>
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Израчунај бројевну вредност израза:

1) $-2^2 \cdot 3 - (-3)^2 \cdot 4 = -4 \cdot 3 - 9 \cdot 4 = -12 - 36 = \boxed{-48}$

2) $-2^2 + (-3)^2 - 4 \cdot 2^2 - (-1)^2 - 3^2 = -4 + 9 - 4 \cdot 4 - 1 - 9 = 5 - 16 - 10 = \boxed{-19}$

3) $(-2)^2 - 3^2 - 4 \cdot 2^2 - 1^2 = 4 - 9 - 4 \cdot 4 - 1 = -5 - 16 - 1 = \boxed{-22}$

4) $(-2)^2 \cdot (7 - (-3)^2)^2 = 4 \cdot (7 - 9)^2 = 4 \cdot (-2)^2 = 4 \cdot 4 = \boxed{16}$

5) $\left(-1\frac{2}{3}\right)^2 \cdot \left(0,2^2 - \left(-\frac{3^2}{5}\right)\right) = \left(-\frac{5}{3}\right)^2 \cdot \left(0,04 - \left(-\frac{9}{5}\right)\right)$

$$= \frac{25}{9} \cdot \left(\frac{1}{25} + \frac{9}{5}\right)$$

$$= \frac{25}{9} \cdot \left(\frac{1}{25} + \frac{45}{25}\right)$$

$$= \frac{25^1}{9} \cdot \frac{46}{25^1}$$

$$= \frac{46}{9} = \boxed{5\frac{1}{25}}$$

$$6) 2 \cdot \left(\frac{1}{2}\right)^2 + (-0,3) : 3^2 = 2 \cdot \frac{1}{4} + \left(-\frac{3}{10}\right) : 9 = \frac{1}{2} + \left(-\frac{\cancel{3}^1}{10}\right) \cdot \frac{1}{\cancel{9}^3} = \frac{1}{2} - \frac{1}{30} = \frac{15}{30} - \frac{1}{30} = \frac{14}{30} = \boxed{\frac{7}{15}}$$

$$7) -4 \cdot \left(-\frac{1}{4}\right)^2 + \frac{3}{2^2} = -\cancel{4}^1 \cdot \frac{1}{\cancel{16}^4} + \frac{3}{4} = -\frac{1}{4} + \frac{3}{4} = \frac{2}{4} = \boxed{\frac{1}{4}}$$

$$8) \frac{1}{5} : \left((-0,1)^2 - \frac{1}{10}\right) = \frac{1}{5} : \left(0,01 - \frac{1}{10}\right) = \frac{1}{5} : \left(\frac{1}{100} - \frac{1}{10}\right) \\ = \frac{1}{5} : \left(\frac{1}{100} - \frac{10}{100}\right) = \frac{1}{5} : \left(-\frac{9}{100}\right) \\ = \frac{1}{\cancel{5}^1} \cdot \left(-\frac{\cancel{100}^{20}}{9}\right) = -\frac{20}{9} = \boxed{-2\frac{2}{9}}$$

$$9) \frac{5^2}{3} - \frac{5}{3^2} - \left(\frac{4}{3}\right)^2 = \frac{25}{3} - \frac{5}{9} - \frac{16}{9} = \frac{75}{9} - \frac{5}{9} - \frac{16}{9} = \frac{54}{9} = \boxed{6}$$

$$11) \left(\frac{2}{5}\right)^2 - \frac{2}{5^2} - \frac{2^2}{5} = \frac{4}{25} - \frac{2}{25} - \frac{4}{5} = \frac{4}{25} - \frac{2}{25} - \frac{20}{25} = \boxed{-\frac{18}{25}}$$

$$12) \sqrt{5^2 - 4^2} - \sqrt{(5-4)^2} + 5\sqrt{(-4)^2} = \sqrt{25-16} - \sqrt{1^2} + 5\sqrt{16} = \sqrt{9} - \sqrt{1} + 5 \cdot 4 = 3 - 1 + 20 = \boxed{22};$$

$$13) \sqrt{(13-5)^2} - \sqrt{13^2 - 5^2} + 13\sqrt{(-5)^2} = \sqrt{8^2} - \sqrt{169-25} + 13\sqrt{25} \\ = \sqrt{64} - \sqrt{144} + 13 \cdot 5 \\ = 8 - 12 + 65 = -4 + 65 = \boxed{61}$$

$$14) \left(2\sqrt{\left(-\frac{1}{2}\right)^2} + 2\right) : (3\sqrt{2})^2 = \left(2 \cdot \sqrt{\frac{1}{4}} + 2\right) : (9 \cdot \sqrt{4}) \\ = \left(\cancel{2}^1 \cdot \frac{1}{\cancel{2}^1} + 2\right) : (9 \cdot 2) \\ = (1+2) : 18 = 3 : 18 = \frac{3}{18} = \boxed{\frac{1}{6}}$$

$$15) \frac{3}{8} \cdot \sqrt{3 - \frac{11}{25}} + \sqrt{1,96} = \frac{3}{8} \cdot \sqrt{\frac{75}{25} - \frac{11}{25}} + 1,3 = \frac{3}{8} \cdot \sqrt{\frac{64}{25}} + 1,3 = \\ = \frac{\cancel{3}^1}{\cancel{8}^1} \cdot \frac{\cancel{8}^1}{\cancel{2}^1} + 1,3 = 1 + 1,3 = \boxed{2,3}$$

$$16) \sqrt{1,44} - \frac{7}{5} \cdot \sqrt{2 - \frac{17}{49}} = 1,2 - \frac{7}{5} \cdot \sqrt{\frac{98}{49} - \frac{17}{49}} = 1,2 - \frac{7}{5} \cdot \sqrt{\frac{81}{49}} = 1,2 - \frac{\cancel{7}^1}{5} \cdot \frac{9}{\cancel{7}^1} = \frac{6}{5} - \frac{9}{5} = \boxed{-\frac{3}{5}}$$

$$17) \sqrt{0,01} - \frac{1}{2} \cdot \sqrt{0,04} + 2 \cdot \sqrt{\frac{9}{16}} = 0,1 - \frac{1}{2} \cdot 0,2 + 2 \cdot \frac{3}{4}$$

$$= \frac{1}{10} - \frac{1}{2} \cdot \frac{1}{5} + \cancel{2}^1 \cdot \frac{3}{\cancel{4}^2}$$

$$= \frac{1}{10} - \frac{1}{10} + \frac{3}{2} = \frac{3}{2} = \boxed{1\frac{1}{2}}$$

$$18) \sqrt{1 + \frac{9}{16}} - \sqrt{0,01} + \frac{9}{16} : \sqrt{\frac{9}{64}} = \sqrt{\frac{16}{16} + \frac{9}{16}} - 0,1 + \frac{9}{16} : \frac{3}{8}$$

$$= \sqrt{\frac{25}{16}} - \frac{1}{10} + \frac{9}{16} \cdot \frac{8}{3} = \frac{5}{4} - \frac{1}{10} + \frac{\cancel{8}^3}{\cancel{16}^2} \cdot \frac{\cancel{8}^1}{\cancel{3}^1}$$

$$= \frac{5}{4} - \frac{1}{10} + \frac{3}{2} = \frac{25}{20} - \frac{2}{20} + \frac{30}{20} = \frac{53}{20} = \boxed{2\frac{13}{20}}$$

$$19) \sqrt{10^2 + 44} + \frac{\sqrt{121}}{11} : \frac{5}{\sqrt{225}} = \sqrt{100 + 44} + \frac{11}{11} : \frac{5}{15} = \sqrt{144} + 1 : \frac{5}{15} = 12 + 1 \cdot \frac{15}{5} = 12 + 3 = \boxed{15}$$

$$20) \frac{2}{5} \cdot \sqrt{25} - 6 \cdot \frac{1}{2} + 4 \cdot \sqrt{6\frac{1}{4}} = \frac{2}{5} \cdot 5 - 6 \cdot \frac{1}{2} + 4 \cdot \sqrt{\frac{25}{4}} = 2 - 3 + 4 \cdot \frac{5}{4} = -1 + 5 = \boxed{4};$$

$$21) \sqrt{1 - \frac{5}{9}} \cdot \sqrt{1 + \frac{5}{4}} = \sqrt{\frac{9}{9} - \frac{5}{9}} \cdot \sqrt{\frac{4}{4} + \frac{5}{4}} = \sqrt{\frac{4}{9}} \cdot \sqrt{\frac{9}{4}} = \frac{2}{3} \cdot \frac{3}{2} = \boxed{1}$$

$$22) \frac{2}{3} \cdot \sqrt{81} - 4 \cdot \sqrt{\frac{25}{36}} + 6 \cdot \sqrt{7\frac{1}{9}} = \frac{2}{3} \cdot 9 - \cancel{4}^2 \cdot \frac{5}{\cancel{6}^3} + 6 \cdot \sqrt{\frac{64}{9}}$$

$$= 6 - \frac{10}{3} + \cancel{6}^2 \cdot \frac{8}{\cancel{6}^1} = 6 - \frac{10}{3} + 16;$$

$$= \frac{18}{3} - \frac{10}{3} + \frac{48}{3} = \frac{56}{3} = \boxed{18\frac{2}{3}}$$

$$23) \sqrt{1 + \frac{9}{16}} \cdot \sqrt{1 - \frac{21}{25}} = \sqrt{\frac{16}{16} + \frac{9}{16}} \cdot \sqrt{\frac{25}{25} - \frac{21}{25}} = \sqrt{\frac{25}{16}} \cdot \sqrt{\frac{4}{25}} = \frac{\cancel{5}^1}{\cancel{4}^2} \cdot \frac{\cancel{4}^1}{\cancel{5}^1} = \boxed{\frac{1}{2}}$$

$$\begin{aligned}
 24) \quad \frac{3}{4} \cdot \sqrt{(-16)^2} + 1 \frac{1}{7} \cdot \sqrt{1 - \frac{15}{64}} - 9 \cdot \sqrt{\left(-\frac{2}{3}\right)^2} &= \frac{3}{4} \cdot |-16| + 1 \frac{1}{7} \cdot \sqrt{\frac{64}{64} - \frac{15}{64}} - 9 \cdot \left|-\frac{2}{3}\right| \\
 &= \frac{3}{4} \cdot 16 + \frac{8}{7} \cdot \sqrt{\frac{49}{64}} - 9 \cdot \frac{2}{3} \\
 &= \frac{3}{\cancel{4}^1} \cdot \cancel{16}^4 + \frac{\cancel{8}^1}{\cancel{7}^1} \cdot \frac{\cancel{7}^1}{\cancel{8}^1} - \cancel{9}^3 \cdot \frac{2}{\cancel{3}^1} \\
 &= 12 + 1 - 6 \\
 &= \boxed{7}
 \end{aligned}$$

$$\begin{aligned}
 25) \quad \frac{3}{5} \cdot \sqrt{(-25)^2} + 1 \frac{1}{6} \cdot \sqrt{1 - \frac{28}{64}} - 7 \cdot \sqrt{\left(-\frac{2}{7}\right)^2} &= \frac{3}{5} \cdot |-25| + \frac{7}{6} \cdot \sqrt{\frac{64}{64} - \frac{28}{64}} - 7 \cdot \left|-\frac{2}{7}\right| \\
 &= \frac{3}{\cancel{5}^1} \cdot \cancel{25}^1 + \frac{7}{6} \cdot \sqrt{\frac{36}{64}} - \cancel{7}^1 \cdot \frac{2}{\cancel{7}^1} \\
 &= 3 + \frac{7}{\cancel{6}^1} \cdot \frac{\cancel{6}^1}{8} - 2 \\
 &= 3 + \frac{7}{8} - 2 = 1 + \frac{7}{8} = \boxed{1 \frac{7}{8}}
 \end{aligned}$$

$$\begin{aligned}
 26) \quad 2 \frac{1}{2} \cdot \sqrt{1 + \frac{11}{25}} - \frac{1}{2} \cdot \sqrt{(-4)^2} &= \frac{5}{2} \cdot \sqrt{\frac{25}{25} + \frac{11}{25}} - \frac{1}{2} \cdot |-4| \\
 &= \frac{5}{2} \cdot \sqrt{\frac{36}{25}} - \frac{1}{\cancel{2}^1} \cdot \cancel{4}^2 \\
 &= \frac{\cancel{5}^1}{\cancel{2}^1} \cdot \frac{\cancel{6}^3}{\cancel{5}^1} - 2 \\
 &= 3 - 2 \\
 &= \boxed{1}
 \end{aligned}$$

$$\begin{aligned}
 27) \quad \sqrt{1 + \frac{9}{16}} + \sqrt{\left(-\frac{3}{4}\right)^2} - 2 \cdot \frac{\sqrt{(-5)^2}}{4} &= \sqrt{\frac{16}{16} + \frac{9}{16}} + \left|-\frac{3}{4}\right| - 2 \cdot \frac{|-5|}{4} = \\
 &= \sqrt{\frac{25}{16}} + \frac{3}{4} - \cancel{2}^1 \cdot \frac{5}{\cancel{4}^2} = \\
 &= \frac{5}{4} + \frac{3}{4} - \frac{5}{2} = \frac{5}{4} + \frac{3}{4} - \frac{10}{4} = \\
 &= \frac{2}{4} = \boxed{\frac{1}{2}}
 \end{aligned}$$

Задатак: Упрости изразе:

$$\begin{aligned} 1) \quad 3\sqrt{18} - 3\sqrt{8} + 4\sqrt{50} &= 3 \cdot 3\sqrt{2} - 3 \cdot 2\sqrt{2} + 4 \cdot 5\sqrt{2} \\ &= 9\sqrt{2} - 6\sqrt{2} + 20\sqrt{2} \\ &= 13\sqrt{2} \end{aligned}$$

$$\begin{aligned} \sqrt{12} &= \sqrt{4 \cdot 3} = \sqrt{4} \cdot \sqrt{3} = 2 \cdot \sqrt{3} = 2\sqrt{3} \\ \sqrt{27} &= \sqrt{9 \cdot 3} = \sqrt{9} \cdot \sqrt{3} = 3 \cdot \sqrt{3} = 3\sqrt{3} \\ \sqrt{48} &= \sqrt{16 \cdot 3} = \sqrt{16} \cdot \sqrt{3} = 4 \cdot \sqrt{3} = 4\sqrt{3} \end{aligned}$$

$$\begin{aligned} 2) \quad (6\sqrt{12} + 3\sqrt{27} - 2\sqrt{48}) \cdot \sqrt{3} &= (6 \cdot 2\sqrt{3} + 3 \cdot 3\sqrt{3} - 2 \cdot 4\sqrt{3}) \cdot \sqrt{3} \\ &= (12\sqrt{3} + 9\sqrt{3} - 8\sqrt{3}) \cdot \sqrt{3} \\ &= 13\sqrt{3} \cdot \sqrt{3} \\ &= 13 \cdot 3 \\ &= 39 \end{aligned}$$

$$\begin{aligned} \sqrt{12} &= \sqrt{4 \cdot 3} = \sqrt{4} \cdot \sqrt{3} = 2 \cdot \sqrt{3} = 2\sqrt{3} \\ \sqrt{27} &= \sqrt{9 \cdot 3} = \sqrt{9} \cdot \sqrt{3} = 3 \cdot \sqrt{3} = 3\sqrt{3} \\ \sqrt{48} &= \sqrt{16 \cdot 3} = \sqrt{16} \cdot \sqrt{3} = 4 \cdot \sqrt{3} = 4\sqrt{3} \end{aligned}$$

$$\begin{aligned} 3) \quad \frac{-2\sqrt{5} + 4\sqrt{45} + \sqrt{125}}{\sqrt{5}} &= \frac{-2\sqrt{5} + 4 \cdot 3\sqrt{5} + 5\sqrt{5}}{\sqrt{5}} \\ &= \frac{-2\sqrt{5} + 12\sqrt{5} + 5\sqrt{5}}{\sqrt{5}} \\ &= \frac{15\sqrt{5}}{\sqrt{5}} \\ &= 15 \end{aligned}$$

$$\begin{aligned} \sqrt{45} &= \sqrt{9 \cdot 5} = \sqrt{9} \cdot \sqrt{5} = 3 \cdot \sqrt{5} = 3\sqrt{5} \\ \sqrt{125} &= \sqrt{25 \cdot 5} = \sqrt{25} \cdot \sqrt{5} = 5 \cdot \sqrt{5} = 5\sqrt{5} \end{aligned}$$

$$4) \quad 2\sqrt{2} + \frac{10}{\sqrt{2}} = 2\sqrt{2} + \frac{10}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = 2\sqrt{2} + \frac{10\sqrt{2}}{\sqrt{4}} = 2\sqrt{2} + \frac{10\sqrt{2}}{2} = 2\sqrt{2} + 5\sqrt{2} = \boxed{7\sqrt{2}}$$

$$5) \quad -7\sqrt{3} + \frac{6}{\sqrt{3}} = -7\sqrt{3} + \frac{6}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = -7\sqrt{3} + \frac{6\sqrt{3}}{\sqrt{9}} = -7\sqrt{3} + \frac{6\sqrt{3}}{3} = -7\sqrt{3} + 2\sqrt{3} = \boxed{-5\sqrt{3}}$$

$$6) \quad \frac{10}{\sqrt{5}} - 4\sqrt{5} = \frac{10}{\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}} - 4\sqrt{5} = \frac{10\sqrt{5}}{\sqrt{25}} - 4\sqrt{5} = \frac{10\sqrt{5}}{5} - 4\sqrt{5} = 2\sqrt{5} - 4\sqrt{5} = \boxed{-2\sqrt{5}}$$

$$7) \quad (-3\sqrt{5})^2 + (3\sqrt{2})^2 - 2 \cdot (2\sqrt{10})^2 = 45 + 18 - 2 \cdot 40 = 63 - 80 = \boxed{-17}$$

$$(-3\sqrt{5})^2 = (-3)^2 \cdot \sqrt{25} = 9 \cdot 5 = 45$$

$$(3\sqrt{2})^2 = 3^2 \cdot \sqrt{4} = 9 \cdot 2 = 18$$

$$(2\sqrt{10})^2 = 2^2 \cdot \sqrt{100} = 4 \cdot 10 = 40$$

Јован, Урош, Реља и Петар радили су један посао 7, 5, 9 и 4 дана током једног месеца и зарадили укупно 45000 динара. Колико новца је свако од њих, ако је добио сразмерно броју радних дана?

$$\begin{array}{lll}
 u : j : r : p = 7 : 5 : 9 : 4 & u + j + r + p = 45000 & u = 7k = 7 \cdot 1800 = 12600 \\
 u : 7 = j : 5 = r : 9 = p : 4 = k & 7k + 5k + 9k + 4k = 45000 & j = 5k = 5 \cdot 1800 = 9000 \\
 u = 7k & 25 \cdot k = 45000 & r = 9k = 9 \cdot 1800 = 16200 \\
 j = 5k & k = 45000 : 25 & p = 4k = 4 \cdot 1800 = 7200 \\
 r = 9k & k = 1800 & \\
 p = 4k & &
 \end{array}$$

У ђачком парламенту једне школе има 36 ученика, а однос ученика седмог и осмог разреда је 5 : 7. Колико је у том парламенту више ученика осмог разреда од ученика седмог разреда?

$$\begin{array}{lll}
 s : o = 5 : 7 & s + o = 36 & s = 5k = 5 \cdot 3 = 15 \\
 s : 5 = o : 7 = k & 5k + 7k = 36 & o = 7k = 7 \cdot 3 = 21 \\
 s = 5k & 12k = 36 & \\
 o = 7k & k = 36 : 12 & o - s = 7 \\
 & k = 3 &
 \end{array}$$

Мешавина поврћа од једног килограма садржи грашак, шаргарепу и першун у односу 5 : 2 : 1. Колико је грама сваког поврћа у тој мешавини

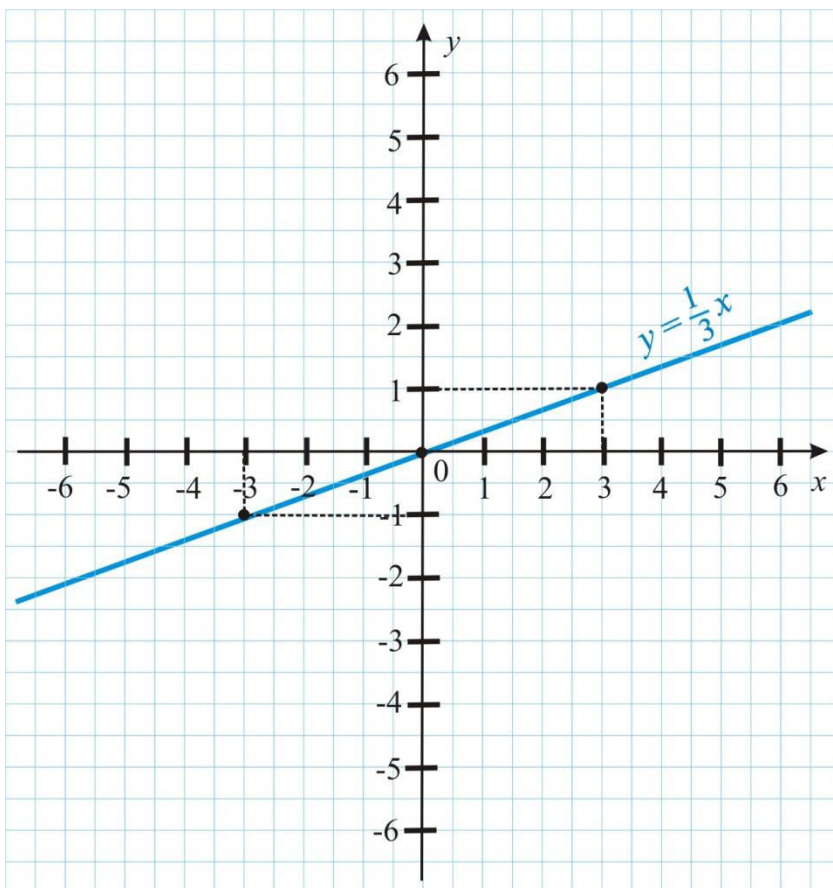
$$\begin{array}{lll}
 g : \check{s} : p = 5 : 2 : 1 & g + \check{s} + p = 1000 & g = 5k = 5 \cdot 125 = 625 \\
 g : 5 = \check{s} : 2 = p : 1 = k & 5k + 2k + 1k = 1000 & \check{s} = 2k = 2 \cdot 125 = 250 \\
 g = 5k & 8 \cdot k = 1000 & p = 1k = 1 \cdot 125 = 125 \\
 \check{s} = 2k & k = 1000 : 8 & \\
 p = 1k & k = 125 &
 \end{array}$$

Јадранка Михајловић

Нацртај графике функција

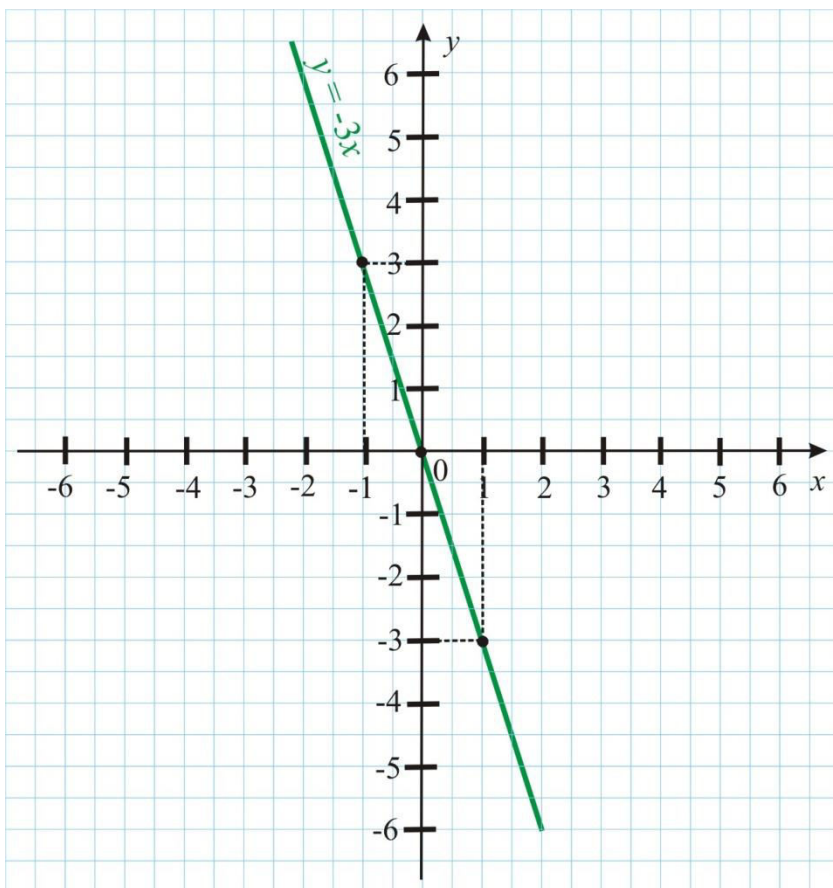
a) $y = \frac{1}{3}x$

x	3	-3	0
$y = \frac{1}{3}x$	1	-1	0



б) $y = -3x$

x	1	-1	0
$y = -3x$	-3	3	0



Јадранка Михајловић

задаџак: Одреди функцију директне пропорционалности која одговара графику на слици:

$$y = k \cdot x$$
$$A(4, 2)$$
$$x = 4, \quad y = 2$$
$$2 = k \cdot 4$$
$$k = 2 : 4$$
$$k = \frac{2}{4} = \frac{1}{2}$$
$$y = \frac{1}{2} \cdot x$$

