Тема: «Нахождение значения числового выражения»

Вычисление варажений

Вычислить

1.001. $\dfrac{(7-6{,}35):6{,}5+9{,}9}{\left(1{,}2:36+1{,}2:0{,}25-1\dfrac{5}{16}\right):\dfrac{169}{24}}$.

Решение.

$$\frac{(7-6{,}35):6{,}5+9{,}9}{\left(1{,}2:36+1{,}2:0{,}25-1\frac{5}{16}\right):\frac{169}{24}}=\frac{0{,}65:6{,}5+9{,}9}{\left(\frac{1}{30}+\frac{24}{5}-\frac{21}{16}\right)\cdot\frac{24}{169}}=\frac{0{,}1+9{,}9}{\frac{169}{48}\cdot\frac{24}{169}}=$$

$$=\frac{10}{\frac{1}{2}}=20.$$

Ответ: 20.

1.002. $\left(\left(\dfrac{7}{9}-\dfrac{47}{72}\right):1{,}25+\left(\dfrac{6}{7}-\dfrac{17}{28}\right):(0{,}358-0{,}108)\right)\cdot 1{,}6-\dfrac{19}{25}$.

Решение.

$$\left(\left(\frac{7}{9}-\frac{47}{72}\right):1{,}25+\left(\frac{6}{7}-\frac{17}{28}\right):(0{,}358-0{,}108)\right)\cdot 1{,}6-\frac{19}{25}=$$

$$=\left(\frac{56-47}{72}\cdot\frac{4}{5}+\frac{24-17}{28}:0{,}25\right)\cdot 1{,}6-\frac{19}{25}=(0{,}1+1)\cdot 1{,}6-\frac{19}{25}=1{,}76-0{,}76=1.$$

Ответ. 1.

1.003. $\dfrac{\left(0{,}5:1{,}25+\dfrac{7}{5}:1\dfrac{4}{7}-\dfrac{3}{11}\right)\cdot 3}{\left(1{,}5+\dfrac{1}{4}\right):18\dfrac{1}{3}}$.

Решение.

$$\frac{\left(0{,}5:1{,}25+\frac{7}{5}:1\frac{4}{7}-\frac{3}{11}\right)\cdot 3}{\left(1{,}5+\frac{1}{4}\right):18\frac{1}{3}}=\frac{\left(\frac{2}{5}+\frac{49}{55}-\frac{3}{11}\right)\cdot 3}{\frac{7}{4}\cdot\frac{3}{55}}=\frac{168}{55}\cdot\frac{4}{7}\cdot\frac{55}{3}=32.$$

Ответ: 32.

1.004. $\left(\dfrac{(2{,}7-0{,}8)\cdot 2\dfrac{1}{3}}{(5{,}2-1{,}4):\dfrac{3}{70}}+0{,}125\right):2\dfrac{1}{2}+0{,}43.$

Решение.

$$\left(\frac{(2{,}7-0{,}8)\cdot 2\frac{1}{3}}{(5{,}2-1{,}4):\frac{3}{70}}+0{,}125\right):2\frac{1}{2}+0{,}43=\left(\frac{\frac{19}{10}\cdot\frac{7}{3}}{\frac{38}{10}\cdot\frac{70}{3}}+\frac{1}{8}\right)\cdot\frac{2}{5}+0{,}43=$$

$$=\frac{1}{20}\cdot\frac{2}{5}+\frac{1}{20}+0{,}43=0{,}02+0{,}05+0{,}43=0{,}5.$$

Ответ: 0,5.

1.005. $\dfrac{2\dfrac{3}{4}:1{,}1+3\dfrac{1}{3}}{2{,}5-0{,}4\cdot 3\dfrac{1}{3}}:\dfrac{5}{7}-\dfrac{\left(2\dfrac{1}{6}+4{,}5\right)\cdot 0{,}375}{2{,}75-1\dfrac{1}{2}}.$

Решение.

$$\frac{2\frac{3}{4}:1{,}1+3\frac{1}{3}}{2{,}5-0{,}4\cdot 3\frac{1}{3}}:\frac{5}{7}-\frac{\left(2\frac{1}{6}+4{,}5\right)\cdot 0{,}375}{2{,}75-1\frac{1}{2}}=\frac{\frac{5}{2}+\frac{10}{3}}{\frac{5}{2}-\frac{4}{3}}\cdot\frac{7}{5}-\frac{\frac{20}{3}\cdot\frac{3}{8}}{1{,}25}=7-2=5.$$

Ответ: 5.

1.006. $$\frac{\left(13{,}75+9\frac{1}{6}\right)\cdot 1{,}2}{\left(10{,}3-8\frac{1}{2}\right)\cdot\frac{5}{9}}+\frac{\left(6{,}8-3\frac{3}{5}\right)\cdot 5\frac{5}{6}}{\left(3\frac{2}{3}-3\frac{1}{6}\right)\cdot 56}-27\frac{1}{6}.$$

Решение.

$$\frac{\left(13{,}75-9\frac{1}{6}\right)\cdot 1{,}2}{\left(10{,}3-8\frac{1}{2}\right)\cdot\frac{5}{9}}+\frac{\left(6{,}8-3\frac{3}{5}\right)\cdot 5\frac{5}{6}}{\left(3\frac{2}{3}-3\frac{1}{6}\right)\cdot 56}-27\frac{1}{6}=\frac{\left(\frac{55}{4}+\frac{55}{6}\right)\cdot\frac{6}{5}}{(2{,}3-0{,}5)\cdot\frac{5}{9}}+\frac{\left(\frac{34}{5}-\frac{18}{5}\right)\cdot\frac{35}{6}}{\left(\frac{4}{6}-\frac{1}{6}\right)\cdot 56}-$$

$$-\frac{163}{6}=\frac{11\left(1+\frac{3}{2}\right)}{\frac{18}{10}\cdot\frac{5}{9}}+\frac{\frac{16}{5}\cdot\frac{35}{6}}{28}-\frac{163}{6}=\frac{55}{2}+\frac{2}{3}-\frac{163}{6}=\frac{169}{6}-\frac{163}{6}=1.$$

Ответ: 1.

1.007. $$\frac{\left(\frac{1}{6}+0{,}1+\frac{1}{15}\right):\left(\frac{1}{6}+0{,}1-\frac{1}{15}\right)\cdot 2{,}52}{\left(0{,}5-\frac{1}{3}+0{,}25-\frac{1}{5}\right):\left(0{,}25-\frac{1}{6}\right)\cdot\frac{7}{13}}.$$

Решение.

$$\frac{\left(\frac{1}{6}+0{,}1+\frac{1}{15}\right):\left(\frac{1}{6}-0{,}1-\frac{1}{15}\right)\cdot 2{,}52}{\left(0{,}5-\frac{1}{3}+0{,}25-\frac{1}{5}\right):\left(0{,}25-\frac{1}{6}\right)\cdot\frac{7}{13}}=\frac{\left(\frac{1}{6}+\frac{1}{10}+\frac{1}{15}\right):\left(\frac{1}{6}+\frac{1}{10}-\frac{1}{15}\right)\cdot\frac{63}{25}}{\left(\frac{1}{2}-\frac{1}{3}+\frac{1}{4}-\frac{1}{5}\right):\left(\frac{1}{4}-\frac{1}{6}\right)\cdot\frac{7}{13}}=$$

$$=\frac{\frac{1}{3}\cdot 5\cdot\frac{63}{25}}{\frac{13}{60}\cdot 12\cdot\frac{7}{13}}=\frac{21}{5}\cdot\frac{5}{7}=3.$$

Ответ: 3.

1.008. $\left(\dfrac{3\frac{1}{3}+2,5}{2,5-1\frac{1}{3}}\cdot\dfrac{4,6-2\frac{1}{3}}{4,6+2\frac{1}{3}}\cdot 5,2\right):\left(\dfrac{0,05}{\frac{1}{7}-0,125}+5,7\right).$

Решение.

$$\left(\frac{3\frac{1}{3}+2,5}{2,5-1\frac{1}{3}}\cdot\frac{4,6-2\frac{1}{3}}{4,6+2\frac{1}{3}}\cdot 5,2\right):\left(\frac{0,05}{\frac{1}{7}-0,125}+5,7\right)=$$

$$=\left(\frac{\frac{10}{3}+\frac{5}{2}}{\frac{5}{2}-\frac{4}{3}}\cdot\frac{\frac{23}{5}-\frac{7}{3}}{\frac{23}{5}+\frac{7}{3}}\cdot\frac{26}{5}\right):\left(\frac{\frac{1}{20}}{\frac{1}{7}-\frac{1}{8}}+\frac{57}{10}\right)=$$

$$=\left(\frac{35}{7}\cdot\frac{34}{104}\cdot\frac{26}{5}\right):\left(\frac{28}{10}+\frac{57}{10}\right)=\frac{17}{2}\cdot\frac{2}{17}=1.$$

Ответ: 1.

1.009. $\dfrac{0,4+8\left(5-0,8\cdot\frac{5}{8}\right)-5:2\frac{1}{2}}{\left(1\frac{7}{8}\cdot 8-\left(8,9-2,6:\frac{2}{3}\right)\right)\cdot 34\frac{2}{5}}\cdot 90.$

Решение.

$$\frac{0,4+8\left(5-0,8\cdot\frac{5}{8}\right)-5:2\frac{1}{2}}{\left(1\frac{7}{8}\cdot 8-\left(8,9-2,6:\frac{2}{3}\right)\right)\cdot 34\frac{2}{5}}\cdot 90=\frac{\left(0,4+40-4-5\cdot\frac{2}{5}\right)\cdot 90}{\left(\frac{15}{8}\cdot 8-\frac{89}{10}+\frac{13}{5}\cdot\frac{3}{2}\right)\cdot\frac{172}{5}}=$$

$$=\frac{34,4\cdot 90}{\left(\frac{150}{10}-\frac{89}{10}+\frac{39}{10}\right)\cdot\frac{172}{5}}=\frac{344\cdot 9}{2\cdot 172}=9.$$

Ответ: 9.

1.010. $$\frac{\left(5\frac{4}{45}-4\frac{1}{6}\right):5\frac{8}{15}}{\left(4\frac{2}{3}+0{,}75\right)\cdot 3\frac{9}{13}}\cdot 34\frac{2}{7}+\frac{0{,}3:0{,}01}{70}+\frac{2}{7}.$$

Решение.

$$\frac{\left(5\frac{4}{45}-4\frac{1}{6}\right):5\frac{8}{15}}{\left(4\frac{2}{3}+0{,}75\right)\cdot 3\frac{9}{13}}\cdot 34\frac{2}{7}+\frac{0{,}3:0{,}01}{70}+\frac{2}{7}=\frac{\left(\frac{229}{45}-\frac{25}{6}\right):\frac{83}{15}}{\left(\frac{14}{3}+\frac{3}{4}\right)\cdot\frac{48}{13}}\cdot\frac{240}{7}+\frac{30}{70}+\frac{2}{7}=$$

$$=\frac{\frac{83}{90}\cdot\frac{15}{83}}{\frac{65}{12}\cdot\frac{48}{13}}\cdot\frac{240}{7}+\frac{5}{7}=\frac{1}{6\cdot 20}\cdot\frac{240}{7}+\frac{5}{7}=\frac{2}{7}+\frac{5}{7}=1.$$

Ответ: 1.

1.011. $$\frac{\left(\frac{3}{5}+0{,}425-0{,}005\right):0{,}1}{30{,}5+\frac{1}{6}+3\frac{1}{3}}+\frac{6\frac{3}{4}+5\frac{1}{2}}{26:3\frac{5}{7}}-0{,}05.$$

Решение.

$$\frac{\left(\frac{3}{5}+0{,}425-0{,}005\right):0{,}1}{30{,}5+\frac{1}{6}+3\frac{1}{3}}+\frac{6\frac{3}{4}+5\frac{1}{2}}{26:3\frac{5}{7}}-0{,}05=$$

$$=\frac{(0{,}6+0{,}42)\cdot 10}{\frac{61}{2}+\frac{1}{6}+\frac{10}{3}}+\frac{12\frac{1}{4}\cdot 26}{26\cdot 7}-0{,}05=$$

$$=\frac{10{,}2}{34}+\frac{7}{4}-\frac{1}{20}=\frac{3}{10}+\frac{7}{4}-\frac{1}{20}=2.$$

Ответ: 2.

Вычислить следующие выражения

1.012. $$\frac{3\frac{1}{3}\cdot 1{,}9+19{,}5:4\frac{1}{2}}{\frac{62}{75}-0{,}16}:\frac{3{,}5+4\frac{2}{3}+2\frac{2}{15}}{0{,}5\left(1\frac{1}{20}+4{,}1\right)}.$$

Ответ: 4.

1.013. $$\frac{\left(1\frac{1}{5}:\left(\frac{17}{40}+0{,}6-0{,}005\right)\right)\cdot 1{,}7}{\frac{5}{6}+1\frac{1}{3}-1\frac{23}{30}}+\frac{4{,}75+7\frac{1}{2}}{33:4\frac{5}{7}}:0{,}25.$$

Ответ: 12.

1.014. $$\frac{\left(4{,}5\cdot 1\frac{2}{3}-6{,}75\right)\cdot\frac{2}{3}}{\left(3\frac{1}{3}\cdot 0{,}3+5\frac{1}{3}\cdot\frac{1}{8}\right):2\frac{2}{3}}+\frac{1\frac{4}{11}\cdot 0{,}22:0{,}3-0{,}96}{\left(0{,}2-\frac{3}{40}\right)\cdot 1{,}6}.$$

Ответ: 1.

1.015. $$\frac{\left(1{,}88+2\frac{3}{25}\right)\cdot\frac{3}{16}}{0{,}625-\frac{13}{18}:\frac{26}{9}}+\frac{\left(\frac{0{,}216}{0{,}15}+0{,}56\right):0{,}5}{\left(7{,}7:24\frac{3}{4}+\frac{2}{15}\right)\cdot 4{,}5}.$$

Ответ: 4.

1.016. $$\left(16\frac{1}{2}-13\frac{7}{9}\right)\cdot\frac{18}{33}+2{,}2\left(\frac{8}{33}-\frac{1}{11}\right)+\frac{2}{11}.$$

Ответ: 2.

1.017. $$\frac{0{,}128:3{,}2+0{,}86}{\frac{5}{6}\cdot 1{,}2+0{,}8}\cdot\frac{\left(1\frac{32}{63}-\frac{13}{21}\right)\cdot 3{,}6}{0{,}505\cdot\frac{2}{5}-0{,}002}.$$

Ответ: 8.