

Pre-Algebra Homework #4

1) Simplify: $\frac{16}{81} + \frac{11}{54} - \frac{1}{24}$

2) Simplify: $\sqrt{\frac{4356}{5625}}$

3) Simplify: $\left(\frac{1}{6}\right)^3 \div \left(\frac{5}{24} + \frac{4}{54}\right) \div \frac{3^2}{122}$

4) If a bag of 24 marbles contains 9 purple marbles, what fraction of the marbles are not purple?

5) Simplify: $\frac{147}{648} \div \frac{189}{288} \cdot \frac{234}{546}$

6) Simplify: $4\frac{2}{9} \div 3\frac{10}{12} \cdot 3\frac{15}{18}$

7) Simplify: $\sqrt{2\frac{7}{9}} \cdot \left(1\frac{1}{2}\right)^2$

8) Simplify: $7\frac{5}{19} \div 4\frac{28}{39} \div 6\frac{9}{19}$

9) Simplify: $\sqrt{2\frac{9}{36}} \div \left(1\frac{1}{6}\right)^2$

10) Simplify: $\left(2\frac{2}{3}\right)^2 - \sqrt{5\frac{16}{36}}$

11) Simplify: $\sqrt[3]{3\frac{3}{8}} \div \left(5\frac{1}{4}\right) - 2\frac{2}{5} \left(2\frac{1}{6} - 1\frac{3}{4}\right) + \left(3\frac{1}{3}\right)^2$

12) Simplify: $\frac{\frac{5}{18} + \frac{7}{6}}{\frac{2}{9} - \frac{1}{12}}$

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13) Simplify: $\frac{\frac{11}{27} - \frac{7}{72}}{\frac{5}{54} - \frac{4}{81}}$

14) Simplify: $1\frac{6}{38}\left(1\frac{7}{8} - 1\frac{1}{12}\right) - \left(8\frac{2}{3}\right)^0 + \sqrt[4]{5\frac{1}{16}} + 3\frac{1}{8}$

15) Simplify: $\frac{3\frac{5}{9} - 2\frac{7}{12}}{1\frac{1}{18} + 4\frac{5}{6}}$

16) Simplify: $-\left(1\frac{1}{5}\right)^2 + \left(6\frac{1}{4} + 5\frac{2}{3}\right) \div \left(13\frac{2}{9} - 4\frac{3}{4}\right) + \sqrt{1\frac{17}{64}}$

17) Simplify $\frac{\frac{1}{64} + \frac{5}{36}}{\frac{7}{54} - \frac{1}{48}}$

18) Simplify $1\frac{9}{14} + \left(6\frac{30}{49}\right)\left(1\frac{17}{18}\right)$

19) Simplify $4\frac{2}{81} - 3\frac{7}{54} + 2\frac{1}{18}$

20) Simplify $\left(7\frac{1}{9}\right) \div \left(13\frac{1}{3}\right) + \left(1\frac{3}{5}\right)^2 - \sqrt{3\frac{6}{25}}$

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