

Pre-Algebra Homework #3

- 1) Simplify: $3[2^3 - (-2 - 1)^4 + \sqrt[5]{32 - 10^0}]^2 - 32 \div 8(-1 - 1)^2$
- 2) Simplify: $-5^2 - |-4 - 4| - 3|-9 + 6| + 2|-1 + 3|^3$
- 3) Simplify: $1^9 + \sqrt{20,449} - 2^6 - 42 \div 6(4 + 3)^2$
- 4) Simplify: $-108 \div 18 \div 3 - |-1 - 1|^4 - 6|-2 - 2|$
- 5) Simplify: $777,231 \div 91$
- 6) If a baseball team plays 56 games and loses 16, what fraction of the games did they win?
- 7) Simplify: $\sqrt[3]{\frac{512}{729}}$
- 8) Simplify: $\frac{308}{117} \div \frac{330}{663} \cdot \frac{105}{238}$
- 9) Simplify: $\frac{2^3}{36} + \frac{119}{4} \left(\frac{5}{51} - \frac{3}{34} \right) - \sqrt[3]{\frac{1}{216}}$
- 10) Simplify: $\frac{7}{104} + \frac{11}{80} - \frac{23}{65}$
- 11) Simplify: $\sqrt{\frac{225}{169}}$
- 12) Simplify: $\left(\frac{2}{7} \right)^2 \div \left(\frac{5}{98} + \frac{4}{196} \right) \div \frac{7^2}{161} + \sqrt[3]{\frac{64}{343}}$
- 13) Simplify: $\frac{6}{114} - \frac{2}{513}$
- 14) Simplify: $\sqrt{\frac{1}{9}} + \frac{1}{8} \div \left(\frac{5}{21} - \frac{9}{56} \right) \div \frac{2^3}{18}$

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- 15) If a bag of 80 marbles contains 15 red marbles, what fraction of the marbles are not red?
- 16) Simplify: $\frac{667}{372} \div \frac{0}{308} \cdot \frac{209}{510}$
- 17) Simplify: $\frac{35}{36} - \frac{7}{32} + \frac{5}{24}$
- 18) Simplify: $\frac{144}{5} \left(\frac{5}{72} + \frac{7}{54} \right) \div 5 - \frac{5^0}{30}$
- 19) Simplify: $\sqrt[4]{\frac{2401}{6561}}$
- 20) Simplify: $\frac{198}{8} \left(\frac{1}{11} + \frac{5}{33} \right)^2 - \frac{8}{324} \div \left(\frac{5}{6} - \frac{3}{8} \right)^2$

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