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: $\sqrt[3]{\dfrac{512}{729}}$

8)   Simplify: $\dfrac{308}{117} \div \dfrac{330}{663} \cdot \dfrac{105}{238}$

9)   Simplify: $\dfrac{2^3}{36} + \dfrac{119}{4}\left(\dfrac{5}{51} - \dfrac{3}{34}\right) - \sqrt[3]{\dfrac{1}{216}}$

10)   Simplify: $\dfrac{7}{104} + \dfrac{11}{80} - \dfrac{23}{65}$

11)   Simplify: $\sqrt{\dfrac{225}{169}}$

12)   Simplify: $\left(\dfrac{2}{7}\right)^2 \div \left(\dfrac{5}{98} + \dfrac{4}{196}\right) \div \dfrac{7^2}{161} + \sqrt[3]{\dfrac{64}{343}}$

13)   Simplify: $\dfrac{6}{114} - \dfrac{2}{513}$

14)   Simplify: $\sqrt{\dfrac{1}{9}} + \dfrac{1}{8} \div \left(\dfrac{5}{21} - \dfrac{9}{56}\right) \div \dfrac{2^3}{18}$

15) If a bag of 80 marbles contains 15 red marbles, what fraction of the marbles are not red?

16) Simplify: $\dfrac{667}{372} \div \dfrac{0}{308} \cdot \dfrac{209}{510}$

17) Simplify: $\dfrac{35}{36} - \dfrac{7}{32} + \dfrac{5}{24}$

18) Simplify: $\dfrac{144}{5}\left(\dfrac{5}{72} + \dfrac{7}{54}\right) \div 5 - \dfrac{5^0}{30}$

19) Simplify: $\sqrt[4]{\dfrac{2401}{6561}}$

20) Simplify: $\dfrac{198}{8}\left(\dfrac{1}{11} + \dfrac{5}{33}\right)^2 - \dfrac{8}{324} \div \left(\dfrac{5}{6} - \dfrac{3}{8}\right)^2$