

Advanced Arithmetic Review Worksheet

(No calculators, of course—the practice will help develop your number sense!)

Operations with Integers (exact answers; no rounding off or remainders)

1) 137,643

2) 421,120,000,000

3) $555 \cdot 7890$

4) $1048 \div 23$

5) $350 \div 13$

6) $13 \div 350$

7) $2^2 \cdot 3^3 \cdot 4^4$

8) $\sqrt{3} \cdot \sqrt{12}$

9) $-4 \cdot \sqrt{1 - 3 \cdot -2^2 \cdot -2} + 2$

10) $3 + 2 \cdot 2 - 3 \cdot 7^2 - 2 \cdot 3^3$

Operations with Fractions (leave results in fraction form, or as a whole number if possible)

11) $\frac{7}{9} + 3\frac{4}{9} + \frac{1}{9}$

12) $\frac{3}{8} - \frac{7}{8}$

13) $1\frac{1}{9} + 1\frac{5}{6} + 1\frac{2}{3}$

14) $\frac{7}{16} - \frac{7}{12}$

15) $\frac{2}{3} \cdot \frac{3}{4} \cdot \frac{4}{5} \cdot \frac{5}{6}$

16) $3 \cdot 1\frac{2}{3} \cdot 2\frac{2}{5}$

17) $\frac{4}{5} \div \frac{2}{3}$

18) $16 \div \frac{1}{2}$

19) $\left(\frac{3}{5}\right)^4$

20) $\sqrt{2\frac{1}{4}}$

Operations with Decimals (leave results in decimal form; no rounding off)

21) $2.345 + 12.87$

22) $0.297 - 5.34$

23) $0.0038 \cdot 2.92$

24) $-5.17 \cdot 2.229$

25) $0.146376 \div 0.321$

26) $224 \div 0.002$

27) $-.34^2$

28) $-.34^2$

29) $\sqrt{0.25}$

30) $\sqrt[3]{0.027}$