

Summer Work Prior to Pre-Algebra

I. Order of Operations

Simplify the following using order of operations.

1) $8 + 7 + 12 \div 4$

2) $30 \bullet (6 - 4)$

3) $36 \div 6 + 7 - 6$

4) $81 \div 27 \times 6 - 2$

5) $\frac{86-11}{11+4}$

6) $(19 - 8)4$

7) $2[3 + 7(4)]$

8) $4(8) \div (8-6)$

II. Operations With Fractions

Add or subtract. Always leave your answers in simplest form.

1) $\frac{2}{7} + \frac{3}{7}$

2) $\frac{8}{15} + \frac{4}{15}$

3) $\frac{5}{6} - \frac{1}{6}$

4) $\frac{1}{5} + \frac{2}{7}$

5) $\frac{4}{5} - \frac{7}{9}$

6) $\frac{1}{9} + \frac{7}{12}$

7) $2\frac{2}{5} + 3\frac{1}{5}$

8) $5\frac{1}{3} - 3\frac{1}{6}$

9) $4\frac{1}{8} + 2\frac{5}{9}$

Multiply or divide. Always leave your answers in simplest form.

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

11) $\frac{1}{7} \cdot \frac{21}{22}$

12) $3\frac{1}{4} \cdot \frac{2}{11}$

13) $\frac{4}{5} \div \frac{2}{5}$

14) $\frac{2}{3} \div \frac{1}{9}$

15) $2\frac{1}{6} \div 1\frac{1}{5}$

16) $\frac{4}{5} \cdot \frac{1}{8}$

17) $2 \cdot \frac{7}{12}$

18) $11 \div 3\frac{1}{7}$

III. Operations With Decimals

Find each sum or difference. Do not use a calculator.

1) $17.8 + 22.9$

2) $113.6 - 41.8$

3) $0.37 + 2.548$

4) $178.4 - 13.76$

5) $36.17 - 20$

6) $8.74 + 3.15$

7) $92.71 + 115.23$

8) $17.00 - 4.61$

Find each product or quotient.

9) 5.7×9.4

10) $13.02 \div 4.2$

11) 7.34×7.6

12) $0.1485 \div 1.35$

13) $100.1 \div 14.3$

14) 1.723×2.49

15) $25.334 \div 5.3$

16) $2 \div 3$

IV. Operations With Integers

Find each sum or difference. Do not use a calculator.

1) $5 + (-6)$

2) $8 - 17$

3) $-6 + 13$

4) $-15 - 3$

5) $15 + (-29)$

6) $20 - (-5)$

7) $-56 - 32$

8) $30 + (-7)$

9) $-16 - (-23)$

10) $-11 + 15 + (-6)$

11) $17 - 33$

12) $23 + (-64)$

Find each product or quotient. Do not use a calculator.

13) $-4(2)$

14) $-36 \div 9$

15) $(-8)(-5)$

16) $112 \div (-8)$

17) $13(-4)$

18) $-26 \div (-13)$

19) $4 \bullet 10 \bullet -3$

20) $-190 \div (-10)$

21) $(-9)(3)(-2)$

22) $304 \div (-8)$

23) $(-6)(-2)(-14)$

24) $-1000 \div 10$