

# SUMMER MATH PACKET FOR STUDENTS RISING TO 6th and 7th GRADE

Provided by Cox Math Tutoring

Directions: Complete the following problems without the use of a calculator, unless the problem is

accompanied by a calculator icon: .

## 1. Evaluate the expressions.

1.1.  $21 \div 3 + (3 \times 9) \times 9 + 5$   
255

1.2.  $18 \div 6 \times (4 - 3) + 6$   
9

1.3.  $14 - 8 + 3 + 8 \times (24 \div 8)$   
33

1.4.  $4 \times 5 + (14 + 8) - 36 \div 9$   
38

1.5.  $4 \times 5 + (14 + 8) - 36 \div 9$   
38

1.6.  $(28 \div 4) + 3 + (10 - 8) \times 5$   
20

1.7.  $12 - 5 + 6 \times 3 + 20 \div 4$

1.8.  $36 \div 9 + 48 - 10 \div 2$   
30  
47

## 2. Write numeric expressions for these phrases:

2.1. Divide 4 by 8 then add 3.  $4 \div 8 + 3$

2.2. Divide 4 by the sum of 8 and 3  $4 \div (8 + 3)$

2.3. From 20, subtract the product of 8 and 2  $20 - (8 \times 2)$

2.4. From 20, subtract 8 and multiply by 2.  $(20 - 8) \times 2$

2.5. The product of 3 and 2 added to the quotient of 6 and 2  
 $(3 \times 2) + (6 \div 2)$  or  $3 \times 2 + 6 \div 2$

2.6. Add 6 to the product of 3 and 2, then divide by 2  
 $(6 + 3 \times 2) \div 2$

**3. Find each sum or difference.**

3.1.  $3.30 + 2.65 =$   
 $5.95$

3.2.  $8.97 + 66 =$   $74.97$

3.3.  $100 - 0.22 =$   
 $99.78$

3.4.  $15.4 - 8 =$   $7.4$

3.5.  $3 - 2.54 =$   ~~$1301 - 5.6 =$~~   
 $0.46$

3.6.  $1.34 + 4.1 =$   
 $5.44$

3.7.  $448 + 1.75 + 80.3 =$   $530.05$

**4. Find each product.**

4.1.  $2.15 \times 8.3 =$   $17.845$

4.4.  $0.8 \times 0.11 =$   $.088$

4.2.  $23 \times 0.47 =$   $10.81$

4.5.  $0.51 \times 4.2 =$   $2.142$

4.3.  $168 \times 2.25 =$   $378$

4.6.  $4.9 \times 0.3 =$   $1.47$

**5. Find each quotient.**

5.1.  $269.12 \div 8 =$   
 $33.64$

5.3.  $2,229.62 \div 46 =$   
 $48.47$

5.2.  $311.56 \div 4 =$   $77.89$

5.4.  $1449.09 \div 81 =$   
 $17.89$

$$\begin{array}{r} 77.89 \\ 4 \overline{) 311.56} \\ \underline{28} \phantom{00} \\ 31 \phantom{00} \\ \underline{28} \phantom{00} \\ 35 \phantom{00} \\ \underline{32} \phantom{00} \\ 36 \phantom{00} \\ \underline{36} \\ 0 \end{array}$$

6. Round each number to the nearest hundred.

6.1.  $\underline{1}24$

100

6.2.  $2,\underline{3}11$

2300

6.3.  $\underline{0}48$

0

7. Circle the number that has a 4 in the tens place. 1,324    4,321

49

8. Circle the number that has a 5 in the tenths place. 36.05    41.5    15.38

41.5

9. Which of the following groups of numbers is in order from least to greatest?

a.

323, 411, 421, 506

b.

98, 94, 36, 29

c.

108, 106, 217, 304

d.

200, 199, 198, 405

10. Which of the following groups of numbers is in order from least to greatest?

a.

0.312, 0.411, 0.601, 0.806

b.

10.8, 10.6, 3.17, 40.4

c.

0.88, 0.84, 0.76, 0.49

d.

5.00, 3.19, 1.98, 0.755

11. Find each sum or difference.

11.1.  $\frac{1}{2} + \frac{2}{2} = \frac{3}{2}$

11.4.  $\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$

11.2.  $\frac{11}{12} - \frac{5}{6} = \frac{1}{12}$

11.5.  $\frac{3}{8} - \frac{1}{6} = \frac{5}{24}$

11.3.  $\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$

12. Find each product. Simplify if possible

12.1.  $\frac{6}{8} \times \frac{1}{3} = \frac{6}{24} = \frac{1}{4}$

12.2.  $\frac{5}{5} \times \frac{7}{10} = \frac{7}{10}$

$$12.3. \quad \frac{4}{5} \times \frac{3}{8} = \frac{3}{10}$$

$$12.4. \quad \frac{4}{9} \times \frac{1}{2} = \frac{2}{9}$$

**13. Find the sum.**

$$13.1. \quad 5\frac{3}{5} + \frac{3}{10} = 5\frac{9}{10}$$

$$13.2. \quad 8\frac{5}{8} + 1\frac{5}{12} = 9 + \left(\frac{5}{8} + \frac{5}{12}\right) \\ = 10\frac{1}{24}$$

13.3. In 2001, the men's indoor pole vault record was  $20\frac{1}{6}$  feet. The women's record for the indoor pole vault was  $15\frac{5}{12}$  feet. What is the combined weight of the two records?

$$20\frac{1}{6} + 15\frac{5}{12} = (20 + 15) + \left(\frac{1}{6} + \frac{5}{12}\right) = 35\frac{7}{12}$$

13.4. How high is a stack of library books if one book is  $1\frac{3}{8}$  inches high, the second book is  $1\frac{5}{6}$  inches high, and the third book is  $2\frac{1}{3}$  inches high?

$$1\frac{3}{8} + 1\frac{5}{6} + 2\frac{1}{3} = (1 + 1 + 2) + \left(\frac{3}{8} + \frac{5}{6} + \frac{1}{3}\right) = 4 + \frac{37}{24} = 5\frac{13}{24}$$

**14. Find the difference.**

$$14.1. \quad 2\frac{2}{3} - 1\frac{1}{4} =$$

$$\frac{4}{4} \frac{8}{3} - \frac{5}{4} \frac{3}{3} = \frac{32 - 15}{12} = 1\frac{5}{12}$$

$$14.3. \quad 2\frac{1}{3} - 1\frac{2}{3} =$$

$$\frac{7}{3} - \frac{5}{3} = \frac{2}{3}$$

$$14.2. \quad 4\frac{3}{4} - 4\frac{2}{5} =$$

$$\frac{5}{5} \frac{19}{4} - \frac{22}{5} \frac{4}{4} = \frac{7}{20}$$

$$14.4. \quad 5\frac{1}{3} - 2\frac{5}{8} =$$

$$\frac{8}{8} \frac{16}{3} - \frac{21}{8} \frac{3}{3} = \frac{128 - 63}{24} \\ = \frac{65}{24} = 2\frac{17}{24}$$

15. Plot, and label, the given points on the coordinate plane.

- 15.1.  $A(3, 5)$
- 15.2.  $B(-2, -1)$
- 15.3.  $C(8, 0)$
- 15.4.  $D(-6, 2)$
- 15.5.  $E(4, -5)$
- 15.6.  $F(0, -4)$

