Chapter 1 & 2 Unit Test - Whole Numbers and Multiplication & Division of Fractions

Name_____Section_____

Be sure to show all your work and circle your answer.
No Calculators allowed.

Perform the indicated operations:

1) Find the sum of 9567, 96, 4573, and 7554.
2) Find the difference of 9839 and 5946.
3) Find the product of 1263 and 675.
4) Find the quotient of 360,451 and 256.
5) Round 4,785,947 to the nearest a) ten, b) hundred, and c) ten thousand.

Solve the following:

6) If an engine makes 41,100 revolutions in 75 minutes, how many revolutions does it make in one minute?

7) After a major expansion, 8,950 square feet of space was added to a convention center. If the convention center currently has 23,240 square feet of space, how much space did it have before the expansion?

8) If 42 cups of flour are required to make a vat of bread dough, how many cups of flour are required to make 25 vats of bread dough?

9) In preparing a bid for a job, a contractor estimates the material costs to be $8562 and the labor to be $5625. If the contractor wants to make a $4000 profit, what should the contractor bid on the job?

Simplify the following:

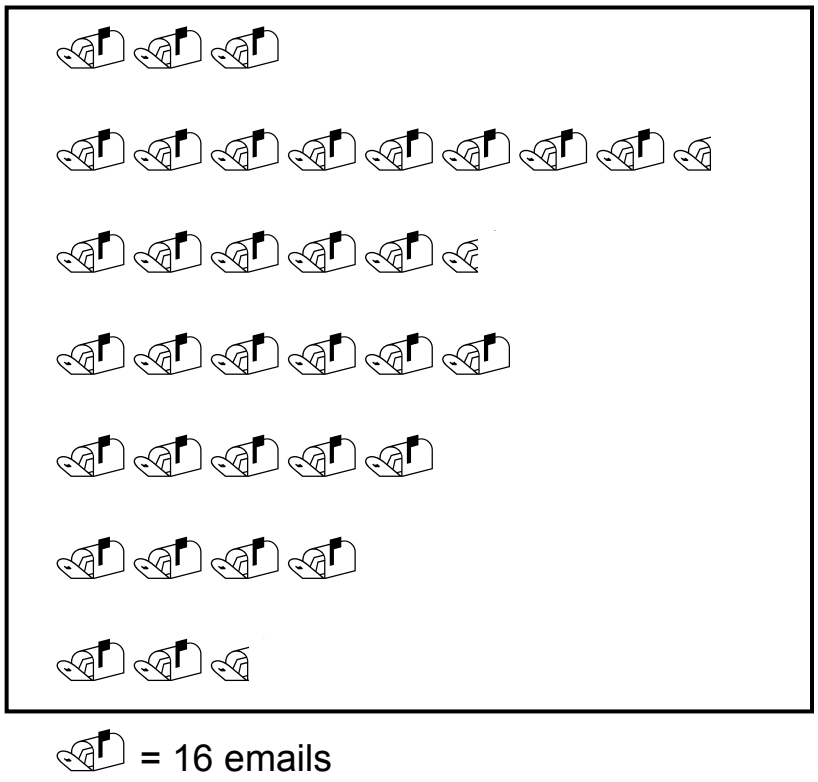
10) $242 \div (3^3 - 4^2) \bullet 6 - \sqrt{25} \bullet 3 \div 15$ 11) $6^1 \bullet \sqrt{16} - [9^2 - 6 \bullet 15 \div 10(8)]$

Solve the following:

12) Maria bought 8 flats of plants at $78 per flat, 3 large palm trees at $256 each, and two pallets of sod at $98 each. If she puts $598 down and agrees to pay the rest in five equal monthly payments, how much is each monthly payment?

The following graph shows the number of emails received for a particular small business during the past week. Use the graph to answer the following question.

The Number of Emails Received during the Past Week



13) How many more emails were received on Monday than on Friday?

14) In the group, $\frac{19}{9}, \frac{3}{10}, \frac{8}{15}, \frac{22}{13}, \frac{6}{6}, \frac{1}{2}$, list

a) The improper fractions. b) The proper fractions.

Find the prime factorization of the following numbers:

15a) 540 15b) 525

Write the following fractions in lowest terms:

16a) $\frac{42}{91}$ 16b) $\frac{41}{123}$

Perform the indicated operation. Write your answer as a whole number or as a mixed number in lowest terms wherever possible:

17) $\frac{14}{45} \bullet \frac{5}{21}$

18) $8\frac{1}{7} \times 8\frac{5}{9}$

19) $48 \bullet \frac{7}{32}$

20) $\frac{\frac{15}{11}}{\frac{33}{5}}$

21) $98 \div \frac{7}{2}$

22) $11\frac{1}{3} \div 6\frac{3}{8}$

Solve the following:

23) A rectangular pen is enclosed by a fence that is $75\frac{1}{8}$ yards long and 48 yards wide. What is the area of the pen?

24) How many $3\frac{1}{2}$ - foot sections can be cut from a 42-foot long pipe?

25) In order to maintain his current standard of living, Samuel must earn $\frac{15}{11}$ of his current salary of $49,500 when he moves to a new city. What is that salary have to be?

Answers:

1) 21,790 2) 3,893 3) 852,525 4) 1408 R 3 5a) 4,785,950 5b) 4,785,900 5c) 4,790,000 6) 548 rpm 7) 14,290 sq. ft

8) 1050 cups 9) $18,187 10) 131 11) 15 12) $198

13) 72 emails 14a) $\frac{19}{9}, \frac{22}{13}, \frac{6}{6}$, 14b) $\frac{3}{10}, \frac{8}{15}, \frac{1}{2}$ 15a) $2^2 \bullet 3^3 \bullet 5$

15b) $3 \bullet 5^2 \bullet 7$ 16a) $\frac{6}{13}$ 16b) $\frac{1}{3}$ 17) $\frac{2}{27}$ 18) $69\frac{2}{3}$ 19) $10\frac{1}{2}$

20) $\frac{25}{121}$ 21) 28 22) $1\frac{7}{9}$ 23) 3606 sq. yd. 24) 12 sections

25) $67,500