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DEV 104-Math Essentials

Nyack College

Date

Assessment #1

Directions: Provide complete responses to each question and show all work. Good luck!

(1) Write each number in expanded form:

a. 23,456 $2,000 + 3,000 + 400 + 50 + 6$

b. 102,543 $100 + 2,000 + 500 + 40 + 3$

c. 2,908 $2,000 + 900 + 8$

d. 548 $500 + 40 + 8$

e. 1,043,987 $1,000,000 + 40,000 + 3,000 + 900 + 80 + 7$

(2) Perform the addition operation for the following problems:

a. $64 + 50$

$$\begin{array}{r} 64 \\ +50 \\ \hline 114 \end{array}$$

b. $604 + 150$

$$\begin{array}{r} 604 \\ +150 \\ \hline 754 \end{array}$$

c. $42 + 53 + 97$

1
97
53
150
+42
192

d. $1{,}164 + 5{,}020$

5,020
1,164
6,184

e. $64{,}654 + 52{,}090 + 11{,}664$

128,408

1
64,654
52,090
116,744
11,664
128,408

(3) Perform the subtraction operation for the following problems:

a. $64 - 50$

64
−50
14

b. $604 - 150$

5 604
150
454

c. $420 - 59$

3 420 10
59
361

d. $7{,}164 - 5{,}020$

7,156
5,020
2,136

e. $64{,}654 - 52{,}090$

$$\begin{array}{r} {}^{5} \\ 64{,}654 \\ 52{,}090 \\ \hline 12{,}564 \end{array}$$

(4) Perform the multiplication operation for the following problems:

a. 64×50

$$\begin{array}{r} 64 \\ \times 50 \\ \hline 00 \\ 320 \end{array} \qquad 3{,}200$$

b. 604×150

$$\begin{array}{r} 604 \\ \times 150 \\ \hline 000 \\ 3020 \\ \hline 604 \\ \hline 90{,}600 \end{array}$$

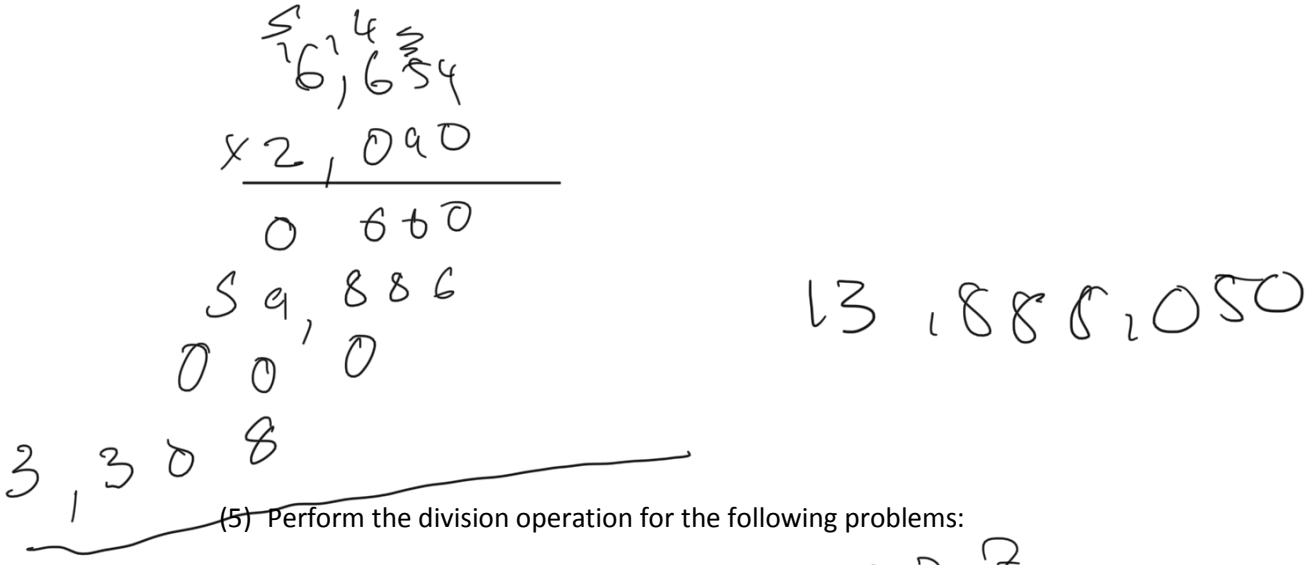
c. 420×59

$$\begin{array}{r} {}^{1} \\ 420 \\ \times 59 \\ \hline 3780 \\ 21{,}00 \\ \hline 24{,}780 \end{array}$$

d. $7{,}164 \times 520$

$$\begin{array}{r} 7{,}164 \\ 520 \\ \hline 0000 \\ 14{,}328 \\ 35{,}820 \\ \hline 3{,}725{,}280 \end{array}$$

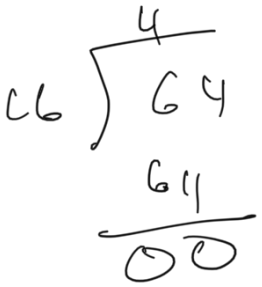
e. $6{,}654 \times 2{,}090$



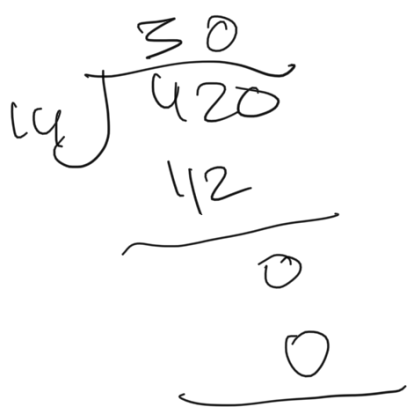
(5) Perform the division operation for the following problems:

a. $6{,}462 \div 6$

b. $64 \div 16$



c. $420 \div 14$



d. $7{,}164 \div 398$

18
398) 7,164
7,164
0 000

e. $604{,}404 \div 18$

33,578

33,5
18) 604,404
54
64,404
54
104
90
14
126

(6) Evaluate the following expressions:

a. $3 \times (2+1) - 3^8 + 4 \div 2$

$3 \times 3 - 3^8 + 4 \div 2$

$3 \times 3^8 + 2 = 6 - 3^8 + 2$

$6 - 6561 + 2$

$6{,}555 + 2$

$= 6557$ (A)

b. $64 \div (8-4)^2 \times 3^2 - 5^2$

$64 \div (4)^2 \times 3^2 - 5^2$

$64 \div 16 \times 9 - 25$ (B)

$4 \times 16 = 64$

c. $(8-4) \times 15 - 17 \times 2$

$4 \times 15 - 34$ (C)

$60 - 34 = 26$