

Math Fundamentals Unit 1 Pre-Test

Write a variable expression for each word phrase.

1.) The product of a number and 4.

*

$6 * 4$ $z * 4$

2.) The sum of k and 7.

+

$k + 7$ or $7 + k$

3.) The difference between 12 and b.

4.) The quotient of f and 11.

5.) 3 less than g.

switch order

$g - 3$

Find the rule the pattern is using. Determine the next number in the sequence.

1.) 11, 17, 23, 29, 35...

$+6$ $+6$ $+6$

$+6$

41

2.) 4, 12, 36, 108...

$\times 3$ $\times 3$ $\times 3$

$\times 3$

$\times 3$

$$\begin{array}{r} 2 \\ 108 \\ \times 3 \\ \hline 324 \end{array}$$

3.) 29, 24, 19, 14...

4.) 128, 64, 32, 16...

1.) What is the relationship between the input and output?

In	4	6	10	2
Out	24	36	60	12

$\times 6$

2.) What is the relationship between the input and output?

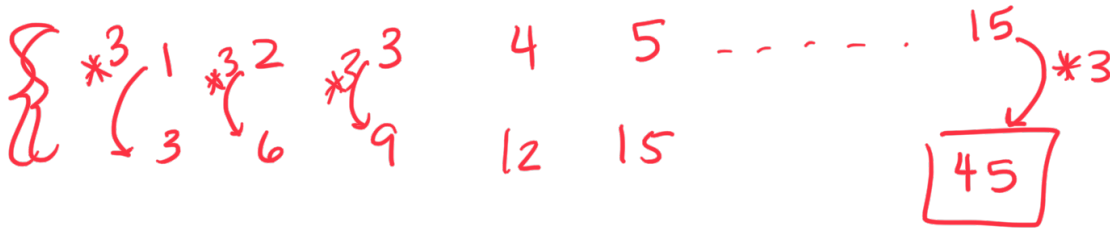
In	9	4	2	12
Out	12	7	5	15

3.) What is the relationship between the input and output?

In	6	10	3	14
Out	4	8	1	12

-2

- 4.) A pattern starts with 3. The second number is a 6. The third is a 9. Fourth is a 12 and fifth is 15. If the pattern continues, what is the identity of the 15th number?



- 5.) A pattern starts with 1. The second number is a 4. The third is a 9. Fourth is a 16 and fifth is 25. If the pattern continues, what is the identity of the 9th number?

- 1.) Use the number below to answer the following questions:

387,294

- a) Which number occupies the ten thousands place?

8

- b) The 9 digit is in which place value?

- c) The 8 digit is in which place value?

ten thousands

- d) Which number occupies the hundred thousands place?

- e) The 2 digit is in which place value?

hundreds

Write the following number in both written and expanded form:

374,815

Written: Three hundred seventy-four thousand eight hundred fifteen

Expanded: $300,000 + 70,000 + 4,000 + 800 + 10 + 5$

Write the following number in both written and expanded form:

708,972

Written: _____

Expanded: _____

Write the following number in both written and expanded form:

98,024

Written: _____

Expanded: _____

1.) Use the number below to answer the following questions:

4.93728

↑ ↑ ↑ ↑ ↑

f) Which number occupies the ten thousandths place?

2

g) The 9 digit is in which place value?

h) The 8 digit is in which place value?

hundred thousandths

i) Which number occupies the hundredths place?

3

j) The 2 digit is in which place value?

1.) Use an inequality sign to compare the value of the two numbers.

→ 3.299999 < 3.3

less than

→ 2.009 < 2.8

less than

8.099 _____ 8.1

7.0000 _____ 7

0.02

→ $5.786 \overset{5}{\underset{-}{\rule{0.5pt}{1.5cm}}} = \underline{\hspace{1cm} 5.79 \hspace{1cm}}$

3.052 = _____

→ $4.\overline{3}09 = 4.3$

9.153 = _____

→ $5.995 = 6.00$

6.050 = _____

↓ ↓

2.825

b) Write the number seven and seventy-two hundredths in number form.

↓ ↓
9 0 3 9.03

d) Write the number eight and ninety-one thousandths in number form.

2.) Write the following number in both written and expanded form:

3.274

Written: _____

Expanded: _____

3.) Write the following number in both written and expanded form:

5.023

Written: Five and twenty-three thousandths

Expanded: $5 + \frac{2}{100} + \frac{3}{1000}$

4.) Write the following number in both written and expanded form:

2.904

Written: _____

Expanded: _____

1.) Solve.

→ If $8 \times 7 = 56$, what is $8,000 \times 70$? 560000

\downarrow \downarrow
 + zeros $3 + 1 = 4$

If $4 \times 6 = 24$, what is 400×600 ?

→ If $48 \div 8 = 6$, what is $48,000 \div 800$? 60

\downarrow \downarrow
 - zeros $3 - 2 = 1$

If $84 \div 12 = 7$, what is $8,400,000 \div 120$?

1.) Solve.

This what an answer looks like!

13753

$$\begin{array}{r}
 809 \\
 \times 17 \\
 \hline
 5663 \\
 + 8090 \\
 \hline
 13753
 \end{array}$$

place value

$7 \times 9 = 63$

$7 \times 0 = 0$

$7 \times 8 = 56$

$1 \times 9 = 9$

$1 \times 0 = 0$

$1 \times 8 = 8$

Nope!

2.) Solve.

$$\begin{array}{r}
 235 \\
 \times 60 \\
 \hline
 \end{array}$$

3.) Solve.

I do not
trust you!!

$$\begin{array}{r} \cancel{190} \\ \times \cancel{24} \\ \hline \end{array} \quad \begin{array}{r} 112.99 \text{ ¢} \\ \cancel{23.10} \\ - 7.138 \\ \hline 15.862 \end{array}$$

4.) Solve.

$$\begin{array}{r} \cancel{702} \\ \times \cancel{31} \\ \hline \end{array} \quad \begin{array}{r} 11 \\ 12.710 \\ + 8.523 \\ \hline 21.233 \end{array}$$

- 1.) Nate ate 238 cookies every day for 42 days. How many cookies did he eat in all?
Why does Nate eat his feelings?

Because they
are delicious.

$$\begin{array}{r} 238 \\ \times 42 \\ \hline \end{array}$$

- 2.) Matilda made \$563 each day selling her outrageously additive lemonade. If she sold lemonade every day for 65 days, how much monies would she make? What could possibly be in the lemonade?

Solve.

1.) $836 \div 22$

$$\begin{array}{r} \boxed{38} \\ 22 \overline{) 836} \\ \underline{66} \\ 176 \\ \underline{176} \\ 0 \end{array}$$

$$83 \div 22 = 3 \dots$$

$$3 * 22 = 66$$

$$176 \div 22 = 8$$

$$8 * 22 = 176$$

$$\begin{array}{r} 83 \\ -22 \\ \hline 61 \end{array}$$

$$\begin{array}{r} 61 \\ -22 \\ \hline 39 \end{array}$$

$$\begin{array}{r} 39 \\ -22 \\ \hline 17 \end{array}$$

2.) $455 \div 13$

3.) $954 \div 53$

4.) $992 \div 16$