Patterns, Tables, and Graphs   Name _____

Identify the Independent Variable in Each of the following Situations.

1. An automobile tire loses t milliliters of tread traveling m miles.

2. An object falls d meters in t seconds.

3. An athlete runs m miles and burns c calories.

4. A garden hose runs for m minutes and produces g gallons of water.

Identify the Dependent Variable in Each of the following Situations.

1. A tree trunk has r rings after growing for y years.

2. The number of links in a chain and the length of the chain.

3. You spend c dollars on t number of T-shirts.

4. The number of eggs e in the carton and the total cost t of the eggs.

Determine the Relationship Suggested by the Table

x	1	3	5	7	9	11
y	15	17	19	21	23	25

A. Add 15 to x to find y

B. Add 14 to x to find y

C. Triple x to find y

D. Subtract 14 from x to find y

x	2	5	8	10	11	15
y	6	15	24	30	33	45

A. Add 3 to x to find y

B. Divide x by 3 to find y

C. Triple x to find y

D. Subtract 10 from x to find y

x	0	5	7	17	23	30
y	13	18	20			

A. Each value of y is 13 times bigger than x

B. Each value of y is 13 bigger than x

C. Each value of y is 13 smaller than x

D. Each value of y is 13 divided by x

x	14	22	26	30	44	58
y	7	15	19			

A. Divide x by 2 to get y

B. Multiply x by 2 to find y

C. Add 7 to x to find y

D. Subtract 7 from x to find y

Write an equation that represents the relationship between the two variables

1.

x	1	3	5	8	11	13
y	17	19	21	24	27	29

_____

2.

x	0	2	5	6	8	9
y	0	4	10	12	16	18

_____

3.

Wreaths Sold (w)	Dollars Made (d)
1	8
3	24
5	40
6	48
7	56

_____

4.

Minutes in Refrigerator (m)	Temperature of Drink in °C (t)
4	11
6	9
8	7
10	5
11	4

_____

5.

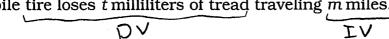| Jet Travel Hours (h)	Jet Travel Miles (m)
1	480
2	960
3	1,440
4	1,920
5	2,400

_____

Write and equation that represents the following situations

6. You open a bank account and deposit $10. Every month you deposit $25 dollars. Let T represent the total money in your account after m months.

7. A real estate agent earns $32,000 a year plus $1,000 for each apartment he sells. Write an equation that shows the relationship between the number of apartments Abe sells, n, and the total amount he earns in a year, E.

What is the total amount Abe would earn from selling 10 apartments in one year?

Patterns, Tables, and Graphs   Name ___*Key*___

Identify the Independent Variable in Each of the following Situations.

1. An automobile tire loses t milliliters of tread traveling m miles.
   DV   IV

2. An object falls d meters in t seconds.
   IV   DV

3. An athlete runs m miles and burns c calories.
   IV   DV

4. A garden hose runs for m minutes and produces g gallons of water.
   IV   DV

Identify the Dependent Variable in Each of the following Situations.

1. A tree trunk has r rings after growing for y years.
   DV   IV

2. The number of links in a chain and the length of the chain.
   IV   DV

3. You spend c dollars on t number of T-shirts.
   DV   IV

4. The number of eggs e in the carton and the total cost t of the eggs.
   IV   DV

Determine the Relationship Suggested by the Table

x	1	3	5	7	9	11
y	15	17	19	21	23	25

A. Add 15 to x to find y

B. Add 14 to x to find y

C. Triple x to find y

D. Subtract 14 from x to find y

x	2	5	8	10	11	15
y	6	15	24	30	33	45

A. Add 3 to x to find y

B. Divide x by 3 to find y

C. Triple x to find y

D. Subtract 10 from x to find y

x	0	5	7	17	23	30
y	13	18	20	36	36	43

A. Each value of y is 13 times bigger than x

(B.) Each value of y is 13 bigger than x

C. Each value of y is 13 smaller than x

D. Each value of y is 13 divided by x

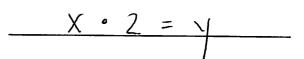| x	14	22	26	30	44	58
y	7	15	19	23	37	51

A. Divide x by 2 to get y

B. Multiply x by 2 to find y

C. Add 7 to x to find y

(D.) Subtract 7 from x to find y

Write an equation that represents the relationship between the two variables

1.

x	1	3	5	8	11	13
y	17	19	21	24	27	29

$$X + 16 = y$$

2.

x	0	2	5	6	8	9
y	0	4	10	12	16	18

$$X \cdot 2 = y$$

3.

Wreaths Sold (w)	Dollars Made (d)
1	8
3	24
5	40
6	48
7	56

$$w \cdot 8 = d$$

4.

Minutes in Refrigerator (m)	Temperature of Drink in °C (t)
4	11
6	9
8	7
10	5
11	4

$$15 - m = t$$

5.

Jet Travel Hours (h)	Jet Travel Miles (m)
1	480
2	960
3	1,440
4	1,920
5	2,400

$$h \cdot 480 = m$$

Write and equation that represents the following situations

6. You open a bank account and deposit $10. Every month you deposit $25 dollars. Let T represent the total money in your account after m months.

$$10 + 25 \cdot m = T$$

7. A real estate agent earns $32,000 a year plus $1,000 for each apartment he sells. Write an equation that shows the relationship between the number of apartments Abe sells, n, and the total amount he earns in a year, E.

$$32,000 + 1,000 \cdot n = E$$

What is the total amount Abe would earn from selling 10 apartments in one year?

$$32,000 + 1,000 \cdot 10 = E$$
$$32,000 + 10,000 = E$$
$$\$42,000 = E$$