Unit Review

LESSON

1.1 **1.** a) Circle the numbers that are divisible by 4.

(312) 1407 (204) 3441 (640) 763

b) How do you know if a number is divisible by 4?

La Regla dice: Un número es divisible por 4 si la cifra representada por los dos últimos numeros es divisible por 4.

2. a) Circle the numbers that are divisible by 2 and by 3.

(606) (330) 501 (2466) 492 (9342)

b) What other number are the circled numbers in part a divisible by? 6

How do you know?

Un número que es divisible por 2 y 3 es divisible por 6.

1.2 **3.** Which numbers below are divisible by 8? Divisible by 5?
How do you know?

a) 244: No por cinco

No por ocho

b) 160: Por cinco → Termina en 0

Por 8 → las tres cifras son divisible por 8

c) 315: Por cinco → Termina en 0

No por 8

d) 608: No por cinco

Por 8 → las tres cifras son divisibles por 8

4. Use your answers from question 3 to help you list all the factors of each number.

a) 244: 1, 2, 4, 61, 122, 244

b) 160: 1, 2, 5, 8, 10, 32, 80, 40, 16, 160

c) 315: 1, 3, 5, 7, 9, 15, 21, 35, 45, 63, 105, 315

d) 608: 1, 2, 4, 8, 16, 19, 32, 38, 76, 152, 304, 608

LESSON

1.3 **5.** Write an algebraic expression for each phrase. Use the variable n.

a) Three times a number: $3n$

b) Five less than a number: $n - 5$

c) Twenty divided by a number: $\frac{20}{n}$

d) Seven more than four times a number: $4n + 7$

6. Evaluate each expression for $n = 5$.

a) $n + 7 =$ 12 b) $10 - n =$ 5 c) $2n + 3 =$ 13

1.4 **7.** a) Zadie climbed four sets of stairs every minute for the Charity Stair Climb Fundraiser. Complete this table. The pattern continues.

Time (minutes)	1	2	3	4	5	6	7	8
Sets of stairs climbed	4	8	12	16	20	24	28	32

b) How many sets of stairs will Zadie have climbed after 15 minutes? $15 \times 4 = 60$

8. Write a relation for the pattern rule for each number pattern.

a) 3, 6, 9, 12, 15, ... It goes up by 3, $\rightarrow n + 3$

b) 8, 9, 10, 11, 12, ... ~~It~~ goes up by 1 $n + 1$

1.5 **9.** Complete each table.
How is each Output number related to its Input number?

a)

Input n	Output $3n + 5$
1	8
2	11
3	14
4	17
5	20

+3, +3, +3, +3

Input goes up by 1
Output goes up by 3

b)

Input n	Output $5n + 3$
1	8
2	13
3	18
4	23
5	28

+5, +5

Input goes up by 1
Output goes up by 5

c)

Input n	Output $5n - 3$
1	2
2	7
3	12
4	17
5	22

+5, +5

Input goes up by 1
Output goes up by 5

LESSON

10. Use algebra. Write a relation for each table.

a)

Input m	Output
1	9
2	11
3	13
4	15
5	17

+2

$2m + 7$

b)

Input m	Output
1	9
2	16
3	23
4	30
5	37

+7

$7m + 2$

c)

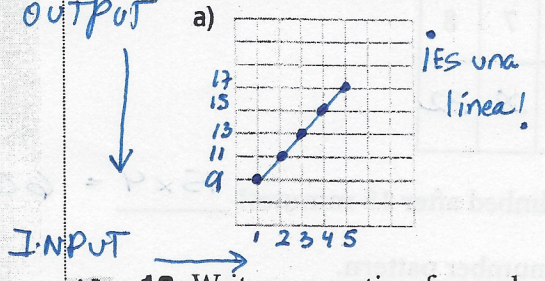
Input m	Output
1	5
2	12
3	19
4	26
5	33

+7

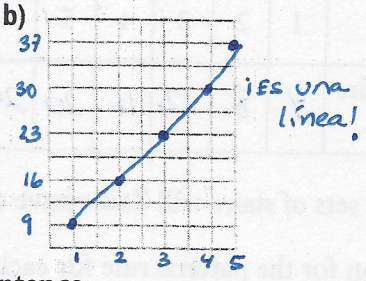
$7m - 2$

1.6 **11.** Graph each relation in question 10.

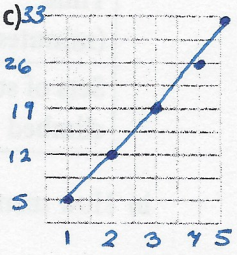
a)



b)



c)



1.7 **12.** Write an equation for each sentence.
Let n represent the number.

Ecuaciones tienen "="

a) Four times a number is sixteen. $4n = 16$

b) Eight subtracted from four times a number is sixteen. $4n - 8 = 16$

c) Twelve more than four times a number is sixteen. $12 + 4n = 16$

d) Thirty-two minus four times a number is sixteen. $4n - 32 = 16$

13. Write an equation for each sentence. Let n represent the number.

a) Four less than a number is sixteen. $n - 4 = 16$

b) A number divided by five is ten. $\frac{n}{5} = 10$

c) Five more than three times a number is eleven. $3n + 5 = 11$

1.8 **14.** Robin walked twice around a lake, plus an extra 3 km.
Her pedometer showed that she had walked a total of 19 km.
Write then solve an equation to find how far it is around the lake.

$2n + 3 = 19 \rightarrow n = 8$