



Warm up Grade 7

Oct. 24, 2023



1)

Term #	5	6	7	8	9
Term	52	54	56	58	60

$2n$

Check it
 $n=5$ out=52
 $2n$
 $2(5)$
 10
 add 42

a) How is the term related to the term number?

Two times term number then add 42.

b) Let n represent any term number. Write the relation for the term

$$2n + 42$$

2)

Term #, n	3	4	5	6	7
Term	33	36	39	42	45

$3n$

Check
 $n=3$ out=33
 $3n$
 $3(3)$
 9
 add 24

a) How is the term related to the term number?

Term # gets multiplied by 3 then add 24.

b) Let n represent any term number. Write the relation for the term

$$3n + 24$$

Homework: Page 24 #6(a,b,c,d,e), #7(a,b,c,d,e), #9(a,b,c both i & ii)

cost for campsite is \$20. The cost for food is \$9 per person

6. Number of People	1	2	3	4	5	p
Cost	29	38	47	56	65	

- (a) 5 people $9 \times 5 + 20 = 65$ 10 people
- (b) Relation $9p + 20$
- (c) cost of food doubles

5 people cost \$65

cost for 10 people \$110
 $9p + 20$
 $9(10) + 20 = 90 + 20 = 110$

Number of People	1	2	3	4	5	p
Cost	38	56	74	

relation $18p + 20$

- (d) cost of campsite doubles

original $9p + 20$
 ↑
 camp

Number of People	1	2	3	4	5	p
Cost	49	58	67	76		

relation $9p + 40$

7. Number of Toppings	0	1	2	3	4	5	e
Cost	8	9	10	11	12	13	

Pizza with cheese cost \$8. It cost \$1 for each extra topping.

- (a) Relation: $1e + 8$

- (b) Cost for 5 Extra toppings
 $1e + 8$
 $1(5) + 8 = 5 + 8 = 13$

- (c) Tuesday's Pizza

On Tuesday Pizza cost \$5 (Use "e" for extra)

Number of Toppings	0	1	2	3	4	5	e
Cost	5	6	7	8	9	10	

Relation $1e + 5$
 Tuesday w Stopping is \$10

- (e) $13 - 10 = 3$ saved

9) a)

Term #	1	2	3	4	5	6
Term	3	5	7	9	11	13

Do
Today

i) How is the term related to the term #? *Term is equal 2 time term # plus one*

ii) Relation: $2n + 1$

b)

Term #	3	4	5	6	7	8
Term	7	10	13	16	19	22

i) How is the term related to the term #?

Term is equal to 3 times term # plus 1

ii) Relation: $3n + 1$

c)

Term #	2	3	4	5	6	7
Term	5	9	13	17	21	25

i) How is the term related to the term #?

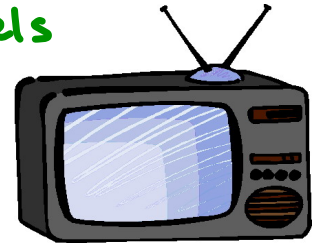
Term is equal to 4 times the term # minus 3

ii) Relation: $4n - 3$

1) A cable TV company charges \$100 for their services and \$3 for each extra TV channel.

a) Complete a chart

let $t \equiv$ tv channels



b) Write a relation for the cost of TV with e extra channels.

$$3t + 100$$

c) How much does it cost for 20 extra channels?

a)

t	Cost
1	103
2	106
3	109
4	112
5	115

$t=1$ } $t=2$ } $t=3$
 $3t + 100$ } $3t + 100$ } $3t + 100$
 $3(1) + 100$ } $3(2) + 100$ } $3(3) + 100$
 $3 + 100$ } $6 + 100$ } $9 + 100$
 103 } 106 } 109

c) $Cost = 3t + 100$

20 extra channels
 t

$$= 3(20) + 100$$

$$= 60 + 100$$

$$= 160$$

It will cost \$160 for 20 extra Channels.

Class/Homework

Page 24 #9

Extra Practice Worksheet 12

<u>Term #</u>	1	2	3	4	5	6
<u>Term</u>	5	<u>10</u>	15	<u>20</u>	25	<u>30</u>

Handwritten annotations: Red arrows labeled "up 5" connect terms in the sequence. A blue circle contains the expression $5n$.

Check
 $n=1 \text{ out} \Rightarrow 5$
 $5n$
 $5(1)$
 5 ✓

ii) $5n$

iii) As Term # increases by 1, Term increases by 5.

Attachments

Grade 7 Unit 1 Shee 12 pdf.pdf