



Warm up Grade 7

Oct. 27, 2022



1) Term #	5	6	7	8	9	...	n
Term	52	54	56	58	60		

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

As Term # increases by 1, the term increases by 2.

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

$$2n + 42$$

Check  $n=5$  Term = 52  
 $2(5) = 10$  need to add 42

$$2n + 42$$

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

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

As term # increases by 1, Term increases by 3.

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

$3n$   
 Check  $n=3$  Term = 33  
 $3(3) = 9$  Need to add 24

$$3n + 24$$

c) What is the "Term" value for  $n = 20$ ?

$$3n + 24$$

$$3(20) + 24$$

$$60 + 24$$

$$84$$

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

(b) Relation

(c) cost of food doubles  
18p + 20

$9p + 20$   
Food      Campsite

$9(5) + 20 = 45 + 20 = 65$

5 people cost \$65

$9p + 20$   
 $9(10) + 20 = 90 + 20 = 110$

cost for 10 people \$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

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

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

Relation  $1e + 5$

(d) Tuesday w Stopping is \$10

(e)  $13 - 10 = 3$  saved

$1e + 5$   
 $1(5) + 5 = 5 + 5 = 10$

9) a)

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

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:  $3n - 2$

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

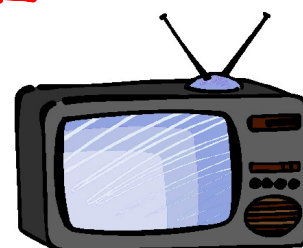
→ b) Write a relation for the cost of TV with  $e$  extra channels.

$$\text{Cost} = 3e + 100 =$$

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

$$\begin{aligned} &3e + 100 \\ &\quad \downarrow \\ &3(20) + 100 \\ &\quad \underbrace{\hspace{1.5cm}}_{60} + 100 \\ &\quad \$160 \end{aligned}$$

The total  
cost for 20  
channels is  
\$160.



# Class/Homework

#1 → algebraic Expression  
de

Extra Practice Worksheet 12

#2)  $n=12$   
| #d

Term#	1	2	3	4	5	6
Term	5	$-$	15	$-$	25	$-$

#3 ab

#4 a b

#5 a, b, d, e, <sup>back</sup>fg

ii)

iii)

## Attachments

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Grade 7 Unit 1 Shee 12 pdf.pdf