

Grade 7

# Warm Up

Nov. 6, 2023



## Similar to TEST QUESTION # 2

1) Karen gets paid \$7 for just getting called to baby sit. On top of that Karen receives \$5 per hour for babysitting.

Keyword  $\longrightarrow 5h + 7$

h # of Hours	Earning
0	7
1	12
2	17
3	22
4	27
5	32
6	37
7	42

a) Fill in the chart that relates hours to Karen's total earning.

b) Write the relation in algebraic form:  $5h + 7$

c) Graph the relation below (Label the graph)

Not on test ↓

d) How much does she have to work to get paid \$42?

(Hint: Extend your graph) 7 hours

e) How much does she earn if she works 10 hours?  
(SHOW WORK)

$$\begin{aligned}
 &h=0 \\
 &5h+7 \\
 &5(0)+7 \\
 &\underbrace{0} + 7 \\
 &7
 \end{aligned}$$

$$\begin{aligned}
 &h=1 \\
 &5h+7 \\
 &5(1)+7 \\
 &\underbrace{5} + 7 \\
 &12
 \end{aligned}$$

$$\begin{aligned}
 &h=2 \\
 &5h+7 \\
 &5(2)+7 \\
 &\underbrace{10} + 7 \\
 &17
 \end{aligned}$$

$$\begin{aligned}
 &h \\
 &5h+7 \\
 &5(10)+7 \\
 &\underbrace{50} + 7 \\
 &57
 \end{aligned}$$

Test outline

#1) a, b, c

3 tables

give algebraic Expression

Ex)

Term #	3	4	5	6
Term	9	11	13	15

up 2

$2n$

Check  
 $n=3$  out: 9  
 $2(3)$   
 6  
 add 3

$$2n+3$$

2) Just like warm up

3) Simplify and Evaluate (high-lighters)

$$2p + 8f - p + 7p - 2f + 4, \quad \begin{matrix} f=1 \\ p=5 \end{matrix}$$

4) Write expression from word description

Ex) Double a number increased by 4

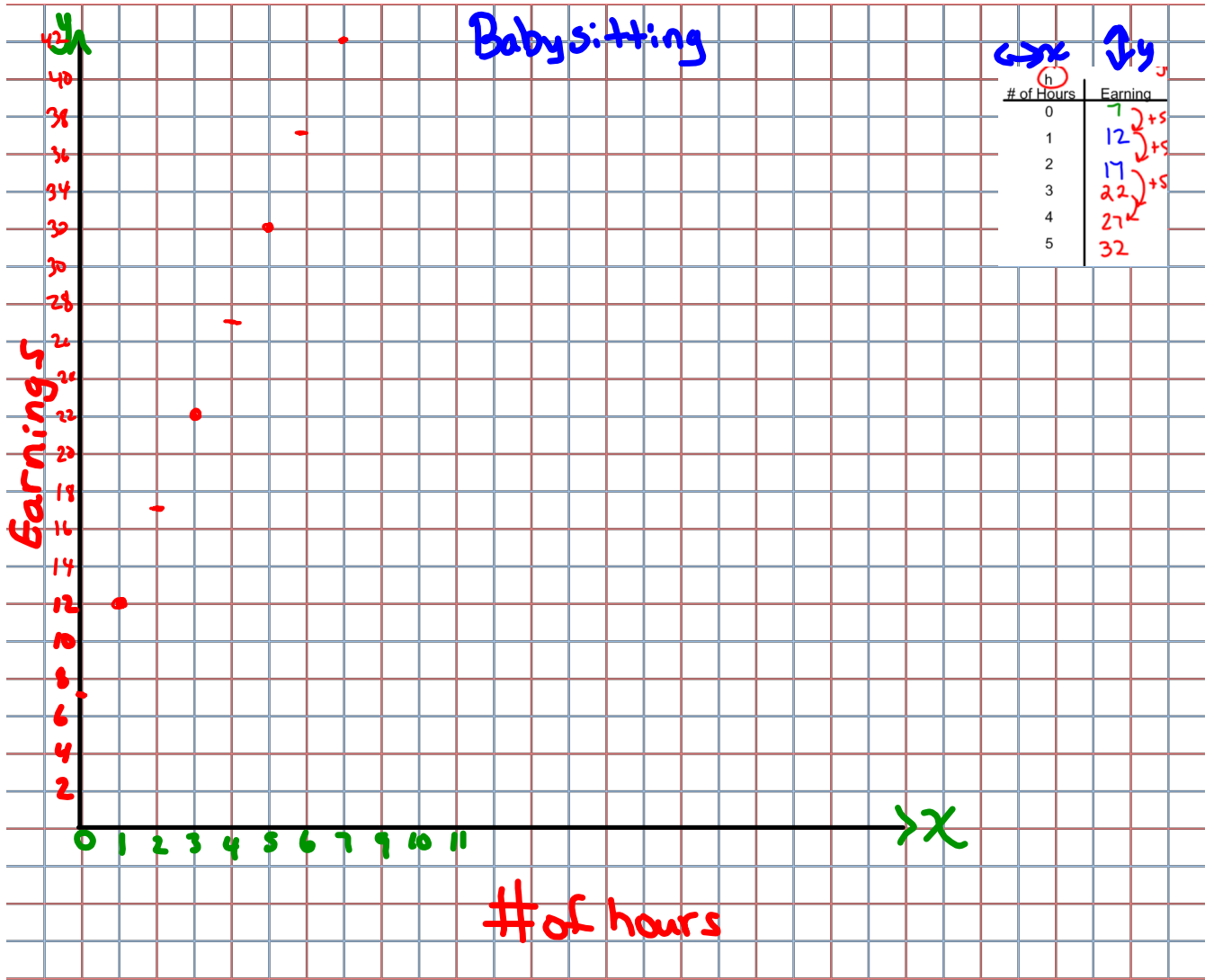
$$2n+4$$

## Key words

for each  
for every  
per  
/

this  
# goes  
with  
letter

<sup>3</sup>6 per hour  $\Rightarrow$  6h

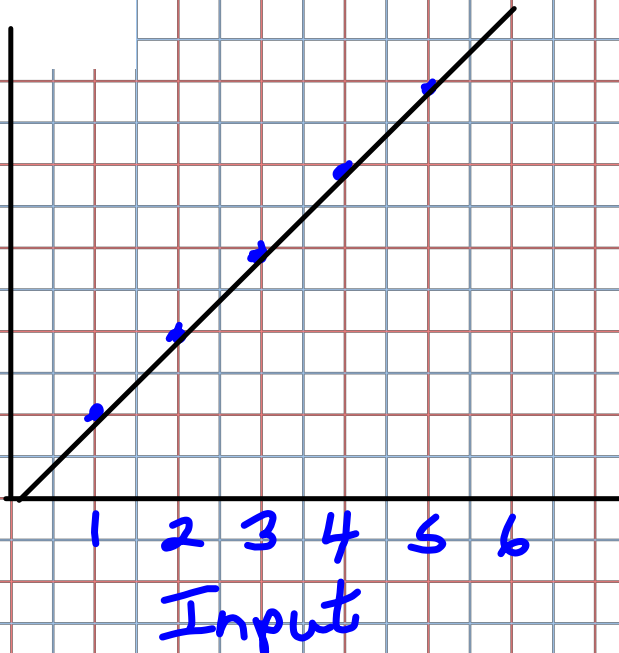


1. Copy and complete this Input/Output table for each relation.
- a)  $4n$  is related to  $n$ .
  - b)  $x + 3$  is related to  $x$ .
  - c)  $4c + 6$  is related to  $c$ .

a)

Input	Output
$n$	$4n$
1	4
2	8
3	12
4	16
5	20

20)  
20  
16  
12  
8  
4  
Output



Bill earn \$4/hr,  
Total earnings  $4n$

$n=1$   
 $4(n)$   
 $4(1)$   
4

$n=2$   
 $4(n)$   
 $4(2)$   
8

$n=3$   
 $4(n)$   
 $4(3)$   
12

Homework Solutions

2.

Homework  
Solutions

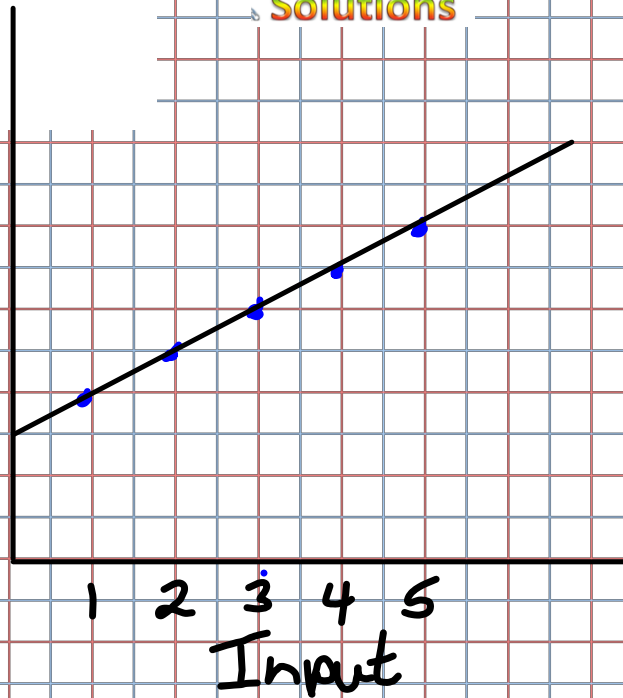
1. Copy and complete this Input/Output table for each relation.

- a)  $4n$  is related to  $n$ .
- b)  $x + 3$  is related to  $x$ .
- c)  $4c + 6$  is related to  $c$ .

b)

Input $n$	Output $x+3$
1	4
2	5
3	6
4	7
5	8

output 8  
6  
4  
2



The number of cookies on the plate is there is 3 more yesterday

$$(x) + 3$$

$$\begin{array}{l} x = 1 \\ (1) + 3 \\ 4 \end{array}$$

$$\begin{array}{l} x = 2 \\ (2) + 3 \\ 5 \end{array}$$

$$\begin{array}{l} x = 3 \\ (3) + 3 \\ 6 \end{array}$$

$$4c + 6$$

$$c = 1$$

$$4(1) + 1$$

$$4 + 1$$

$$5$$

In	Out
1	5
2	9
3	13
4	17
5	21

$$c = 2$$

$$4(2) + 1$$

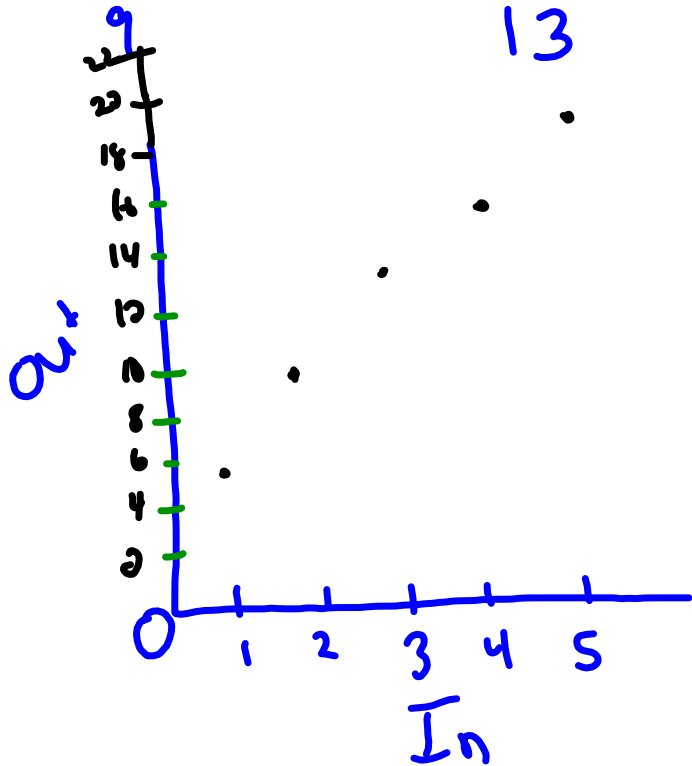
$$8 + 1$$

$$c = 3$$

$$4(3) + 1$$

$$12 + 1$$

$$13$$



4) Input 1

Output 10

$\curvearrowright$  In 8

Out 24

$\curvearrowright$  Output 18

$In = 5$

2 per hour + 8

In	Out
0	8)
2	12)
4	16
6	20
8	24



# *Class / Homework*

Worksheet 13  
↳ first

then if time

Homework pg. 33 -34

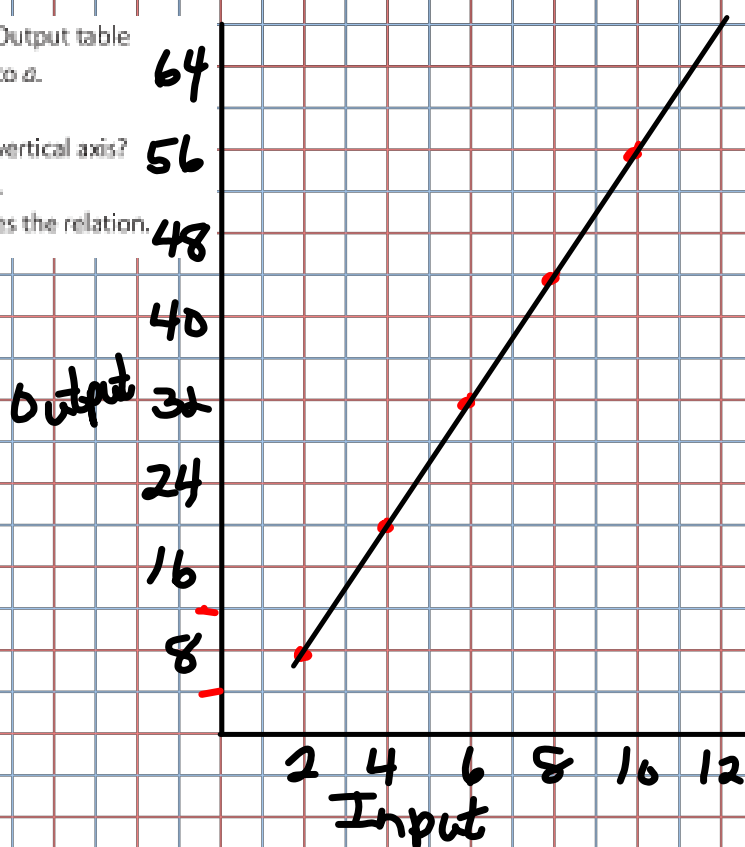
#5

#6 (For # 6, draw Input/output tables and write a relation)

#7

3. a) Copy and complete this Input/Output table to show how  $6a - 4$  is related to  $a$ .  
 b) Graph the relation.  
 What scale did you use on the vertical axis?  
 How did you make your choice.  
 c) Explain how the graph illustrates the relation.

Input	Output
$a$	$6a - 4$
2	8
4	20
6	32
8	44
10	56



1. Copy and complete this Input/Output table for each relation.
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  - b)  $x + 3$  is related to  $x$ .
  - c)  $4c + 6$  is related to  $c$ .

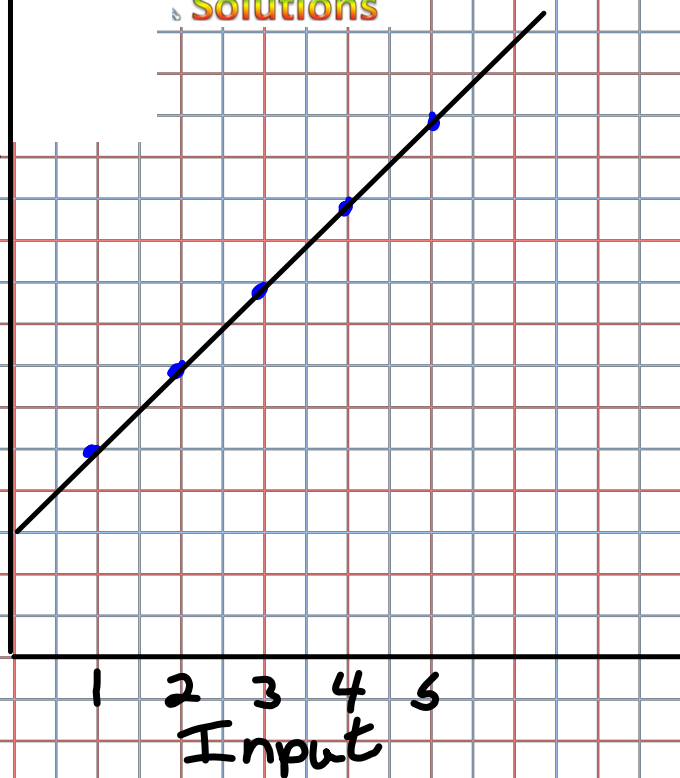
d

Input $n$	Output $4n + 6$
1	10
2	14
3	18
4	22
5	26

output  
28  
24  
20  
16  
12  
8  
4

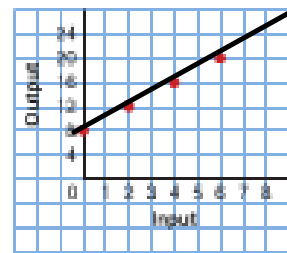
### Homework

### Solutions



Bob earns \$6/day plus \$4 for every item sold.

4. Look at the graph on the right.
- What is the output when the input is 1?
  - Which input gives the output 18?
  - Extend the graph. What is the output when the input is 8?
  - Suggest a real-life situation this graph could represent.



## Homework Solutions

Input	Output
0	8
2	12
4	16
6	20

a) Input 1  
Output  $\rightarrow$  10

b) Output 18  
Input  $\rightarrow$  5

c) Input 8  
Output  $\rightarrow$  24

2nt 8

Twice the cost of  
a ticket increased by 8