



Grade 6 Math



Date: _____

Starts this is the # you multiply your In \Rightarrow n by

input	output
1	25
2	27
3	29
4	31
5	33
6	35

$i \rightarrow$

* What is the input rule?:
Start at 1, then increase by 1

* What is the output rule?:
Start at 25, then increase by 2

* Write an expression that relates the input to the output using a variable.

$$\underbrace{2n}_{\text{multiply}} + \underbrace{23}_{\text{add}}$$

What is the pattern rule that relates the input to the output?

\rightarrow multiply each input by 2 then add 23 to get each output.

$2 \times n$
Check $n=1$ out=25
 2×1

Not so have to add 23 to get 25

What is the output value if the input is 15?

$$2 \times n + 23$$

$$2 \times 15 + 23$$

$$30 + 23$$

$$53$$

$n = 15$

Key words:

Sharing or grouping \longrightarrow \div divide

Per, /, for every, for each, (double or triple) \longrightarrow multiply \times

plus, addition, more \longrightarrow add, (+)

fewer, less than, \longrightarrow subtract, (-)

\$20 plus, \$2 for each hour
 add multiply

$$2 \times h + 20$$

hours In	money Out	
0	20	→ for showing up
1	22	20 + 2 ^{1^{hr}}
2	24	20 + 2 + 2 ^{2nd hr}
3	26	20 + 2 + 2 + 2

In n	Out y
5	52
6	62
7	72
8	82
9	92

1 ↪ 5 ↪ 6 ↪ 7 ↪ 8 ↪ 9

$10n + 2$

tells you what you multiply Input by → 10 → 10 × n

In = 5 Out = 52
10 × n ↓
10 × 5 ↓
50 ↓
need to add 2 →

In x	Out y
3	11
4	16
5	21
6	26
7	31

$5 \times n$

Check
 $n = 3$ out = 11
 $5 \times n$
 5×3
 15 Subtract
 4

$$5n - 4$$

5 times my input, then subtract 4 to get output.

In	Out
0	4
1	10
2	16
3	22
4	28

16 →

6

$6n$
Check

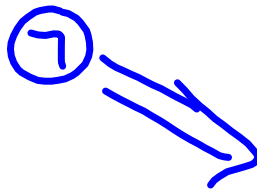
$n=0$
 $6 \times n$
 6×0
0

out = 4

So need to add 4

$6n + 4$

In	Out
6	40
7	47
8	54
9	61



$$7 \times n$$

$$\text{In} = 6 \quad \text{out} = 40$$

$$\begin{array}{r} 7 \times 6 \\ \hline 42 \end{array}$$

Subtract
two

$$7 \times n - 2$$

In x	out y
0	1
1	10
2	19
3	28
4	37

$9n + 1$

$9 \times n$
 Check
 $n = 0$ $out = 1$
 9×0
 $\underbrace{\quad}_0$ need to add 1

POP QUIZ

Attachments

Pumpkin Graphing.pdf