Copy out the chart

In	Out
10	20
11	23
12	26
13	29

+1 ⟍   2 +3

a) What is the pattern rule for the input?
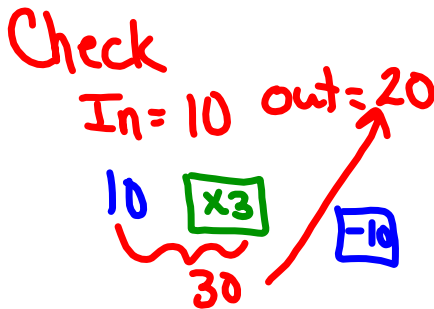
Start at 1 and increas 1 each time.

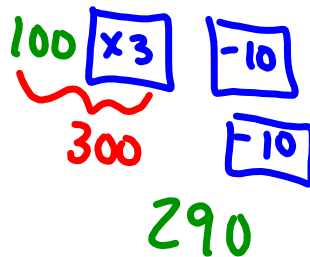b) What is the pattern rule for the output?

Start at 20 and add 3 each time.

Check
In= 10   out= 20

10 [X3]
    ⟿
    30   [-10]

c) What is the pattern rule that relates the input to the output? (Machines)

In [X3] [- 10] = output

d) What is the output value if the input is 100?

In= 100   Output= ? 290

100 [X3] [-10]
    ⟿
    300   [-10]

        290

Review of expression (Use a variable to represent the following)

a) seven more than double a number

b) 5 less than a number

c) you get paid $5 per hour

d) four more than double a number

From FRIDAY (Already have)

Kent is a local duck hunting guide. Kent earns $60 a day, plus $8 for each duck he shoots. On Saturday, Kent shot 6 ducks. How much money did he earn?

Strategie 1)

Make a table of values to show the total earnings for 1,2,3,4,5, and 6 ducks (Show work for the first 3 entries, then use patterns)

let 'd" represent # of duck Kent shoots.

# of Ducks	Total Earnings
1	68 $\rangle$ +8
2	76 $\rangle$ +8
3	84
4	92 $\rangle$ +8 +8
5	100
6	108 $\rangle$ +8

$d \boxed{\times 8} \boxed{+60}$

What pattern do you see in the table?

Total Earning is increasing by 8 each time.

Strategie 2)   (Use key workds to help)

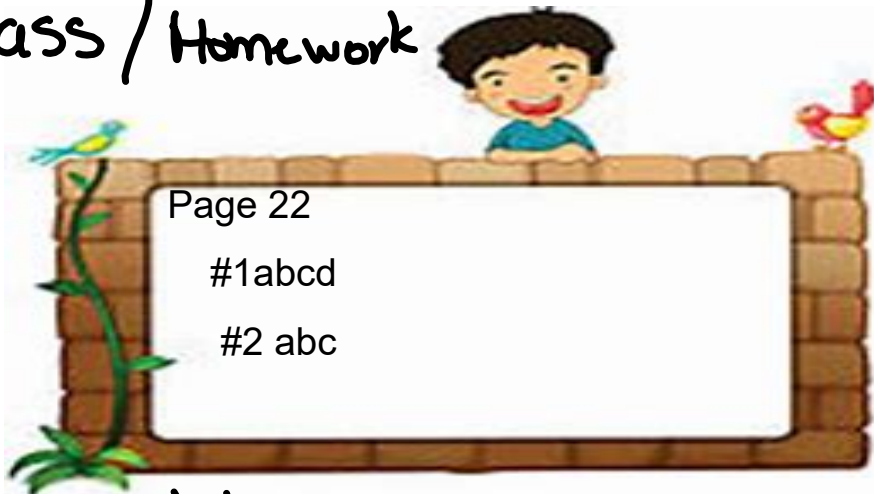Write the pattern rule that relates the number of ducks to the total earnings.

$\text{Total Earning} = d \boxed{\times 8} \boxed{+60}$

Use the pattern rule to find the total earnings for 9 ducks. (Show work)

$9 \boxed{\times 8} \boxed{+60}$
$72 \quad +60$
$\Rightarrow \$132$

Suppose he shot 15 ducks. How much would he have earned? ~~(Hint work backwards)~~ Show work

$D \boxed{\times 8} \boxed{+60}$
$15 \boxed{\times 8} \boxed{+60}$
$= \$120 \boxed{+60}$
$= \$180$

Class / Homework

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#1abcd

#2 abc

1a)

Cars	# of wheels
1	
2	
3	
4	
5	

TIP **Practice**

1. Kilee builds model cars.
   She needs 4 plastic wheels for each car she builds.
   a) Make a table to show the number of wheels
      needed for 1, 2, 3, 4, and 5 cars.
   b) Write a pattern rule that relates the number
      of cars to the number of wheels.
   c) Write an expression to represent the pattern.
   d) Find the number of wheels needed to build 11 cars.
      How can you check your answer?

2. For each table of values, write an expression that relates the input to the output.
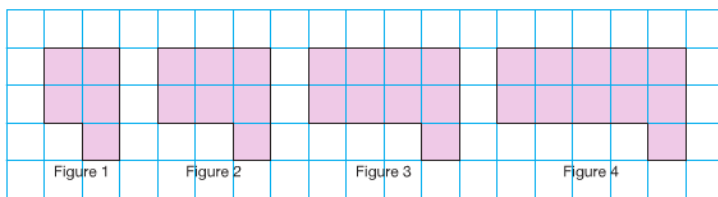
a)

Input	Output
1	0
2	2
3	4
4	6
5	8

b)

Input	Output
1	5
2	8
3	11
4	14
5	17

c)

Input	Output
1	2
2	6
3	10
4	14
5	18

3. Here is a pattern of squares on grid paper.

Figure 1   Figure 2   Figure 3   Figure 4

a) Make a table to show the numbers of squares in the first 4 figures.
b) Write a pattern rule that relates the figure number to the number of squares.
c) Write an expression to represent the pattern.
d) Find the number of squares in the 7th figure.
   Which strategy did you use?
   Continue the pattern to check your answer.

4. The Grade 6 class held a dance-a-thon to raise money to buy a new computer for the class. Tyson's friend, Alana, pledged $10, plus $2 for each hour Tyson danced.
   a) Make a table to show the amount Alana pledged for 1, 2, 3, 4, and 5 hours danced.
   b) Write a pattern rule that relates the amount pledged to the number of hours danced. Show your work.
   c) Write an expression to represent the pattern.
   d) Find how much Alana pledged when Tyson danced 9 h. What strategy did you use?
   e) Suppose Alana pledged $34. How many hours did Tyson dance? How did you find out?

5. The pattern in this table continues.
   a) Write a pattern rule that relates the number to the amount.
   b) Write an expression to represent the pattern.
   c) Write a story problem you could solve using the pattern. Solve your problem.

Number	Amount ($)
0	5
1	11
2	17
3	23
4	29

6. Skylar wants to adopt a whale through
   the BC Wild Killer Whale Adoption Program.
   The cost of a 1-year adoption is $59.
   Skylar walks his neighbour's dog to raise the money.
   He gets $3 for each walk.
   a) Make a table to show the amount left to raise
      after 1, 2, 3, 4, and 5 walks.
   b) Write a pattern rule that relates the number
      of walks to the amount left to raise.
   c) Write an expression to represent the pattern.
   d) Find the amount left to raise after 15 walks.
   e) After how many walks will Skylar have raised
      enough money? How do you know?