Math 9 notes Name: KEY

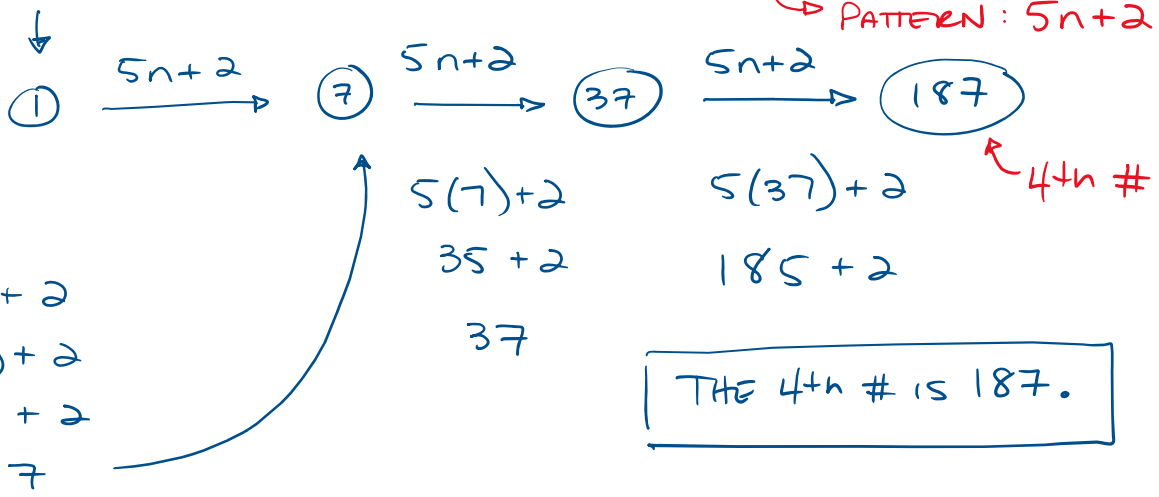
3.2 Generalizing Patterns of Problem Solving p. _____

1. Find your SIGNAL words to help decide what mathematical operations you are doing.
2. Break down the INFORMATION into small, understandable parts.
3. Draw A PICTURE or MAKE A TABLE if it helps.
4. Look for PATTERNS.
5. Always CHECK the problem to make sure your answer makes sense!

Example 1: Each number in a pattern is 2 more than 5 times the preceding number. If the first number is one, what is the fourth?

+2 5. n

PATTERN: $5n+2$



THE 4th # IS 187.

Example 2: What number when divided by three and then added to seven is equal to ten?

10 n ÷ 3 + 7 =

Let n be the number

Then, $\frac{n}{3} + 7 = 10$

COULD PROBLEM SOLVE:

$\frac{n}{3} = 3 \rightarrow \frac{n}{3} = 3$

$\frac{9}{3} = 3$

$n = 9$

OR

COULD USE ALGEBRA:

$\frac{n}{3} + 7 = 10$

$-7 \quad -7$

$3 \cdot \frac{n}{3} = 3 \cdot 3$

$n = 9$

THE # IS 9.