PA4-5: Decreasing Sequences

In a **decreasing sequence**, each number is one less than the one before it.
What number is 3 less than 9?   (Or: What is 9 – 3?)

Keitha finds the answer by counting on her fingers.
She says 9 with her fist closed and counts backwards
until she has raised 3 fingers:

9   8   7   6

The number 6 is 3 **less than** 9.

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1. Subtract the number in the circle from the number beside it. Write your answer in the blank.

   a) 3 (-2) _____   b) 12 (-3) _____   c) 8 (-4) _____   d) 9 (-1) _____

   e) 8 (-5) _____   f) 10 (-4) _____   g) 5 (-1) _____   h) 9 (-2) _____

   BONUS:

   i) 28 (-4) _____   j) 35 (-6) _____   k) 57 (-8) _____   l) 62 (-4) _____
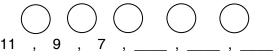
2. Fill in the missing numbers.

   a) _____ is 4 less than 7   b) _____ is 2 less than 9   c) _____ is 3 less than 8

   d) _____ is 5 less than 17   e) _____ is 4 less than 20   f) _____ is 6 less than 25
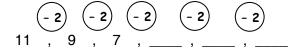
   g) _____ is 7 less than 28   h) _____ is 4 less than 32   i) _____ is 5 less than 40

3. Extend the following <u>decreasing</u> patterns.

Example:

11 , 9 , 7 , ____ , ____ , ____

<u>Step 1:</u> (- 2) (- 2) (- 2) (- 2) (- 2)
11 , 9 , 7 , ____ , ____ , ____

<u>Step 2:</u> (- 2) (- 2) (- 2) (- 2) (- 2)
11 , 9 , 7 , 5 , 3 , 1

a) 10 , 9 , 8 , ____ , ____ , ____   b) 14 , 12 , 10 , ____ , ____ , ____

c) 23 , 22 , 21 , ____ , ____ , ____   d) 24 , 21 , 18 , ____ , ____ , ____

e) 90 , 80 , 70 , ____ , ____ , ____   f) 45 , 40 , 35 , ____ , ____ , ____

Patterns & Algebra 1