Write the solutions for problems 1 – 3 ***on this handout***:

1. S16 is set of multiples of 16 less than 100. S12 is a set of multiples of 12 less than 100.

- List the elements of these sets using curly brackets {}
- Draw Venn diagram for S12 and S16.

S16 = _____

S12 = _____

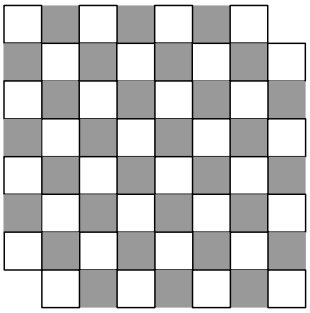
2. If it is 7am now, what time of the day will it be in …

(a) … 27 hours?

(b) … 127 hours?

(c) … 11043 hours?

3.* If we take a usual chessboard and remove two diagonally opposite corner squares, is it possible to cut it into **2 × 1** rectangles?



[Hint: it is important that some squares are black, some are white]. Pick a reasonable range for your Cartesian plane, do not use the whole page.

_____

_____

_____

Solve problems 4 – 7 ***in your notebook***:

4. Use a RULER to draw a Cartesian X – Y plane. Plot a quadrilateral ABCD by points

A(3, -1) B(3,3) C(-1,3) D(-1, -1)

5. Make an auxiliary **drawing** to construct an **equation** needed to solve a word problem:

Four friends, Pichu, Pikachu, Tepig, and Oshawott went trick or treating. Oshawott collected 50 more candies than Pichu, Pikachu 50 less, and Tepig got 2 times more candies than Pichu. When they got together and put all candies in one jar, the number was 250.

How many candies each one collected?

6. Divide with remainder:

a). 825 : 9 b). 3761 : 13 c). 111,111,111,111 : 111

7. How many vans are needed to take 32 students on a field trip if a van can take 6 students?

What is the maximal number of vans that can be fully occupied by these students?