## Homework #2

Assigned on September 23, 2018

## Difficult problems are marked with \* and are optional

1. Which of the following numbers are divisible by 3?

Which of them are also divisible by 9?

- 1. 75 432
- 2. 2772825
- 3. 5 402 070
- 2. In the number 5 236 845 cross out three digits so that the resulting number is
  - Biggest possible number a.
  - b. Smallest possible number
- 3. Each number below is divisible by 3. One digit is covered with a smiley face. Try to guess what digit is hidden (you may get more than one answer)



4. Each number below is divisible by 9. One digit is covered with a smiley face. Try to guess what digit is hidden.

 $8 \odot 5 99 \odot 73 \odot 46 1 \odot 346 \odot 34 114 \odot 5$ 

5. The Elephant-father weights 200 kilogram more than the Elephant-mother. The Elephant-mother weights 500 kilogram more than the Elephant-son. This family of three weights together 1800 kilograms. What is the weight of the Elephant-son?

6. Mike has 5 candies more than John. John has 8 candies less than Sam. Together they have 19 candies. How many candies does each boy have?

- 7. Place parentheses into the following expression so that the statement is true.
  - a) 96-12\*6:3=8
  - b) 64:64-8\*4=2
  - c) 63:9+54=1
  - d) 75-15:5+10=22.
- 7. Draw two rays AB and CD so that they intersect:
  - a) by a point

b) by a segment

c) by a ray

d) don't intersect at all

- 8. (a) On the segment *AB* mark a point "*M*". How many segments do we have on the picture?
  - (b) Mark a second point "P". How many segments do we have now?
  - (c) Mark a third point "*F*". Count segments.
  - (d) How many segments will be if you mark 5 points on the segment AB?
  - (e) How many segments will be if you mark 10 points on the segment AB?
- \* (f) How many segments will be if you mark 99 points on the segment AB?