## Difficult problems are marked with * and are optional

1. Which of the following numbers are divisible by 3 and which of them are also divisible by 9 ?
2. 75432
3. 2772825
4. 5402070
5. In the number 5236845 cross out three digits so that the resulting number is
a. Biggest possible number
b. Smallest possible number
6. 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)

7. Each number below is divisible by 9 . One digit is covered with a smiley face. Try to guess what digit is hidden.
$8 \because 5$
$99 \because$
$73 \because 46$
-( 34
$114 \bigodot 5$
8. 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?
9. 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?
10. 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) $63: 9+54=1$
11. 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
12. (a) On the segment $A B$ 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 $A B$ ?
(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 ?

