Name:

## QUIZ - MATH GRADE 10

1. (4\%) Show the following interval on the number line: $x \in(-2,5]$

2. (4\%) Show the following interval on the number line: $x>2$

3. (4\%) Show the following interval on the number line: $x \in[-6,-1[$

4. (4\%) Show the following interval on the number line: $-\infty<x \leq 0$

5. (4\%) Write down in 2 different notations the interval on the number line:

(I) $\qquad$
(II) $\qquad$
6. (4\%) Write down in 2 different notations the interval on the number line:

(I) $\qquad$
(II) $\qquad$
7. ( $40 \%$ ) Solve the inequalities:
a. $(8 \%)-3 x+1 \leq 7$
b. $(20 \%) \frac{3 x+1}{2}<\frac{x}{3}-\frac{7}{6}$
c. $(6 \%)$ Sketch both inequalities on the number line:

| $\boldsymbol{- 1 0}$ | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

d. (6\%) Write down their intersection: $\qquad$
8. ( $18 \%$ ) Solve the inequality: $-6<\frac{4-6 x}{4}<10$ and show it on the Graph:

9. (18\%) Solve the inequality $\frac{x}{2}+4<\frac{x}{6}+x$ and show it on the Graph:


