

Problems marked with * are more difficult.

1. Compute:

a. $(-1)^3$;

b. -1^3 ;

e. $(-1)^{2n}$; $n \in N$ (n belongs to the set of natural numbers).

f. $(-1)^{2n+1}$; $n \in N$ (n belongs to the set of natural numbers).

g. $8 + 7^2$;

h. $(8 + 7)^2$;

i. $8^2 + 7^2$;

c. $(-1)^4$;

d. -1^4 ;

j. $5 \cdot 2^4$;

k. $(5 \cdot 2)^4$;

l. $5^2 \cdot 2^4$

2. Number a and b are marked on the number line below. Compare the following:

$a + b \dots 0$

$a - b \dots 0$

$ab \dots 0$

$\frac{a}{b} \dots 1$

$-\frac{a}{b} \dots 1$



3. a. Draw a segment 5 cm long. Using a compass and a ruler divide the segment by half, draw a perpendicular.
- b. Using a ruler draw a line l . Mark a point M on this line ($M \in l$), draw a perpendicular to line l at the point M (use compass and a ruler).
- c. Mark a point N not on this line ($N \notin l$), draw a perpendicular to line l which is passing through the point N (use compass and a ruler).