Test 2	Reading graphs

Le Châtelard

conversion	velocity	average velocity	acceleration
$1 \text{ m/s} = 3.6 \text{ km/h}$	$v = \dfrac{d}{t}$	$v_{average} = \dfrac{v_1 + v_2}{2}$	$a = \dfrac{v_2 - v_1}{t}$

Exercice 1   Complete the graphics :

Situation	Position	Vitesse	Accélération
a) A car breaks before hitting me:	x [m] t [s]	v [m/s] t [s]	a [m/s²] t [s]
b) A runner starts to run:	x [m] t [s]	v [m/s] t [s]	a [m/s²] t [s]
c) I let fall a pen:	x [m] t [s]	v [m/s] t [s]	a [m/s²] t [s]
d) A cat goes away at constant velocity:	x [m] t [s]	v [m/s] t [s]	a [m/s²] t [s]
e) Nothing moves:	x [m] t [s]	v [m/s] t [s]	a [m/s²] t [s]

Exercice 2   The graph below gives the velocity of a mobile as a function of time:
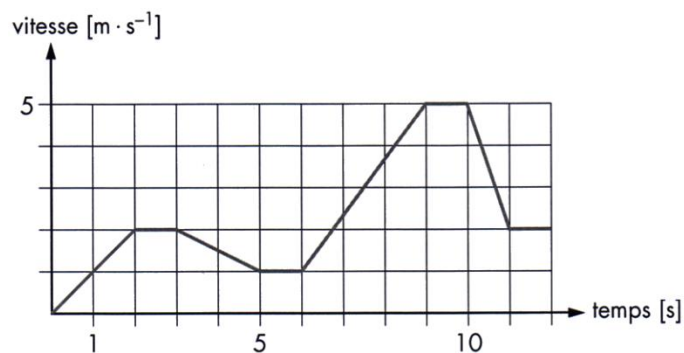
a) What is the maximum velocity?

b) What is the minium velocity?

c) What is the strongest braking?

d) What is the average velocity between 0 s and 2 s?

e) What is the acceleration between 2 s and 3 s?

f) What is the acceleration between 3 s and 5 s?

Exercice 3   Explain the race between a rabbit and a tortle in the following cases:

a)

b)

c)

d)