

**Exercise Chapter 2: motion in 1 D (part 1)**

1- A pig runs **rightward 20m** and then walks **5m leftward**. Finally it walks **25m** again **leftward**. **Find the distance and displacement.** { note: **rightward is (+)** and **leftward is (-)** }

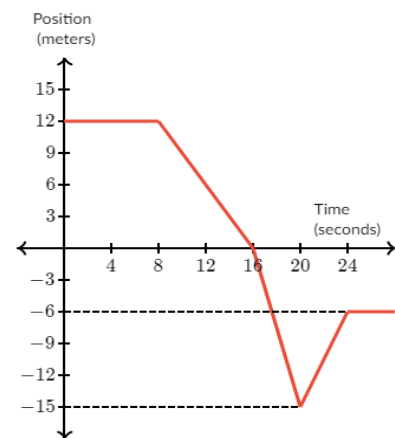
- a) Distance  $x = -25$  m, displacement  $\Delta x = -10$  m
- b) Distance  $x = 50$  m, displacement  $\Delta x = -10$  m
- c) Distance  $x = +25$  m, displacement  $\Delta x = -25$  m
- d) Distance  $x = 50$  m, displacement  $\Delta x = -25$  m

2- From the graph find the **displacement** between **8s and 24s**?

- a) -18 m
- b) 27 m
- c) 25 m
- d) -25 m

Find the **distance** between **8s and 24s**?

- a) -27 m
- b) 36 m
- c) 25 m
- d) -25 m

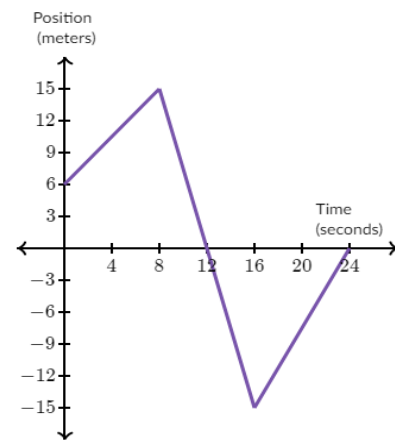


3- From the graph find the **displacement** between **12s and 24s**?

- a) 30 m
- b) 20 m
- c) 0 m
- d) 15 m

Find the **distance** between **12s and 24s**?

- a) 0 m
- b) 20 m
- c) 54 m
- d) 12 m

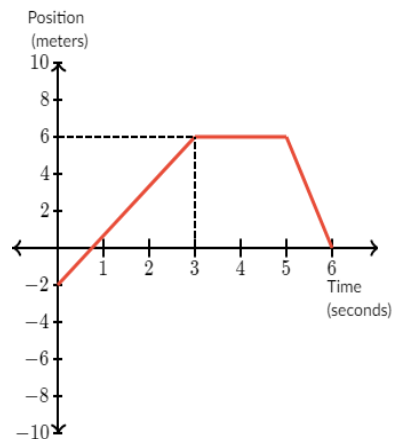


4- From the graph find the **displacement** between **0s and 6s**?

- a) 3 m
- b) 2 m
- c) 0 m
- d) 1 m

Find the **distance** between **0s and 6s**?

- a) 14 m
- b) 12 m
- c) 2 m
- d) 1 m



5- A rabbit runs **rightward 30m** and then walks **15m leftward**. Finally it walks **5m** again **leftward**. **Find the average velocity at time 300s.** { note: **rightward is (+)** and **leftward is (-)** }

- a) 0.03 m/s
- b) 0.16 m/s
- c) -0.16 m/s
- d) 6 m/s

6- Megan walks **1100m** to the **left** in **330s**. **Find the speed?**

- a) 3.3 m/s
- b) 0.3 m/s
- c) 33 m/s
- d) 66 m/s

7- An alligator crawls **25m**, to the **left** with an **average velocity of -1.2 m/s**. **Find the time?**

- a) 30s
- b) 10s
- c) 20.8s
- d) 15s

8- Races are **timed** to an accuracy of **0.001s**. **What distance** could a person rollerblading at a **speed of 8.5 m/s** travel in that period of time?:

- a) 85 mm
- b) 85 cm
- c) 8.5 m
- d) 8.5 mm

9- LeBron bikes **800m** to the **left** in 25s. Find the **average velocity?**

- a) 12 m/s
- b) -32 m/s
- c) -23 m/s
- d) 55 m/s

10- An object moves along the x axis according to the equation  **$x(t) = (3.00t^2 - 2.00t + 3.00)$**   
m. Determine

<b>1- the position at t = 2.00s</b>	<b>2- the velocity at t = 2.00s</b>	<b>3- the acceleration at t = 2.00s</b>
a) 11 m	a) -21 m	a) 10 m
b) 5.5 m	b) 5.5 m	b) 5.5 m
c) -5.5 m	c) -4.5 m	c) 6 m
d) 13 m	d) 10 m	d) 12 m