

1. Conversion of Heat

a. Celsius to Fahrenheit

$$\frac{^{\circ}\text{C} * 9}{5} + 32 = ^{\circ}\text{F}$$

Example 1: $^{\circ}34 \text{ C}$ to $^{\circ}\text{F}$

$$\frac{34 * 9}{5} + 32 = 61.2 + 32 = ^{\circ}93.2 \text{ F}$$

Example 2: $^{\circ}40 \text{ C}$ to $^{\circ}\text{F}$

$$\frac{40 * 9}{5} + 32 = 72 + 32 = ^{\circ}104 \text{ F}$$

b. Fahrenheit to Celsius

$$^{\circ}\text{F} - 32 * 5 / 9 = ^{\circ}\text{C}$$

Example 1: $^{\circ}93.2 \text{ F}$

$$^{\circ}93.2 - 32 = 61.2 * 5 = 306 / 9 = ^{\circ}34 \text{ C}$$

Example 2: $^{\circ}104 \text{ F}$

$$^{\circ}104 - 32 = 72 * 5 = 360 / 9 = ^{\circ}40 \text{ C}$$

c. Kelvin to Celsius and Celsius to Kelvin

Kelvin to Celsius: $K + 273.15 = C$

Celsius to Kelvin: $C - 273.15 = F$

Example 1: $234 \text{ K TO C, C TO K}$

$$234 + 273.15 = ^{\circ}507.15 \text{ C}$$

$$^{\circ}507.15 - 273.15 = 234 \text{ K}$$

Ex.

- a. 23 f to c
- b. 41 c to f
- c. 50 k to c
- d. 90 f to c
- e. 60 c to f
- f. 50 c to k

2. Speed, Time and Distance

a. $\text{Speed} = \frac{\text{distance}}{\text{time}}$

b. $\text{Time} = \frac{\text{distance}}{\text{speed}}$

c. $\text{Distance} = \text{time} * \text{speed}$ or $\text{speed} * \text{time}$

Example 1: $d = 30\text{km}$ $t = 6 \text{ hrs}$

$$\text{Speed} = \frac{30}{6} = 5$$

$$\text{Speed} = 5 \text{ km/ph}$$

Example 2: $d = 40 \text{ km}$ $s = 5\text{km/pm}$

$$\text{Time} = \frac{40}{5} = 8$$

Time = 8 m

Example 3: $t = 20$ m $s = 40$ m/pm

Distance = $20 * 40$ or $40 * 20$

Distance = 800 m

Ex.

a. $D = 12 \text{ km}$ $T = 3 \text{ hrs}$

b. $D = 15 \text{ km}$ $S = 5 \text{ km/ph}$

c. $T = 5\text{m}$ $S = 7\text{ m/pm}$

[illegible]

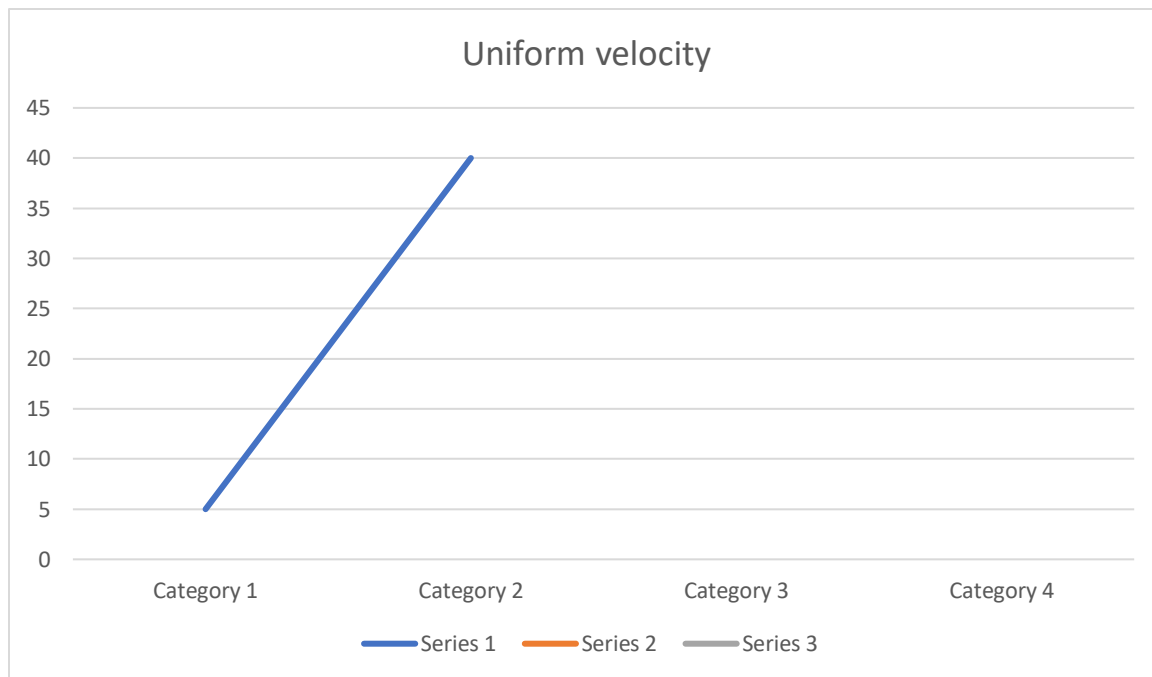
Velocity and Acceleration

Velocity: speed + time

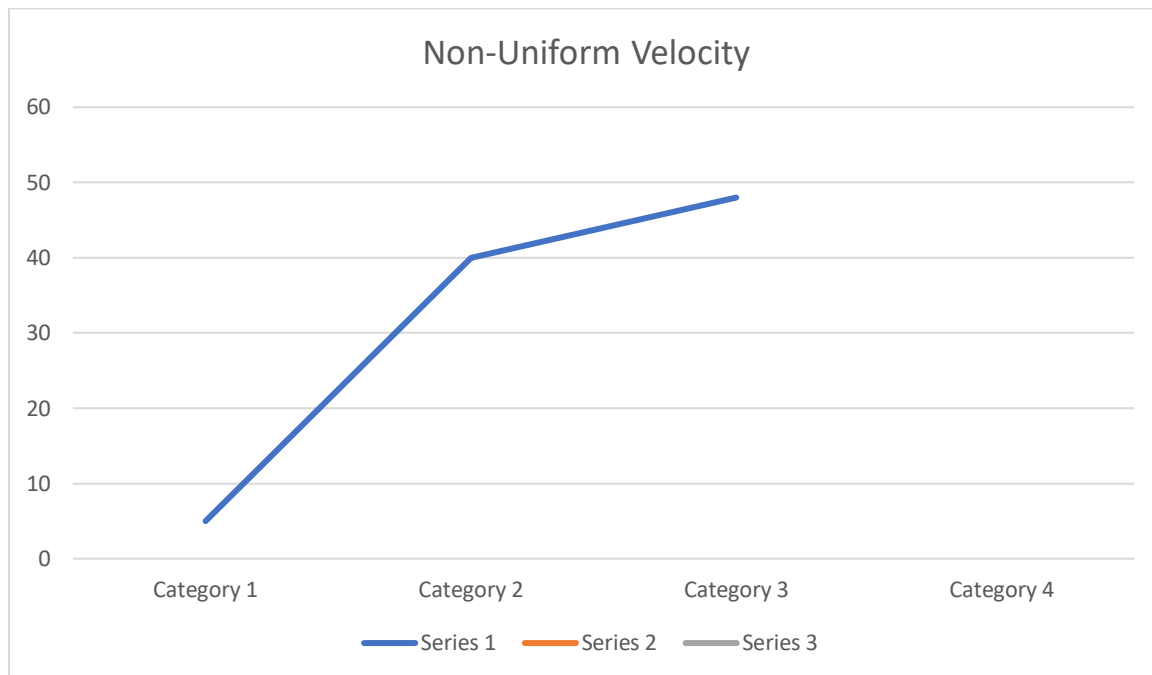
Acceleration: Velocity + speed

Velocity: 1. Uniform Velocity 2. Non-Uniform Velocity

Example 1: 5 hrs 40 km



Example 2: 5 hrs 48 km



Both examples are acceleration as they both are in velocity and speed.

[illegible]