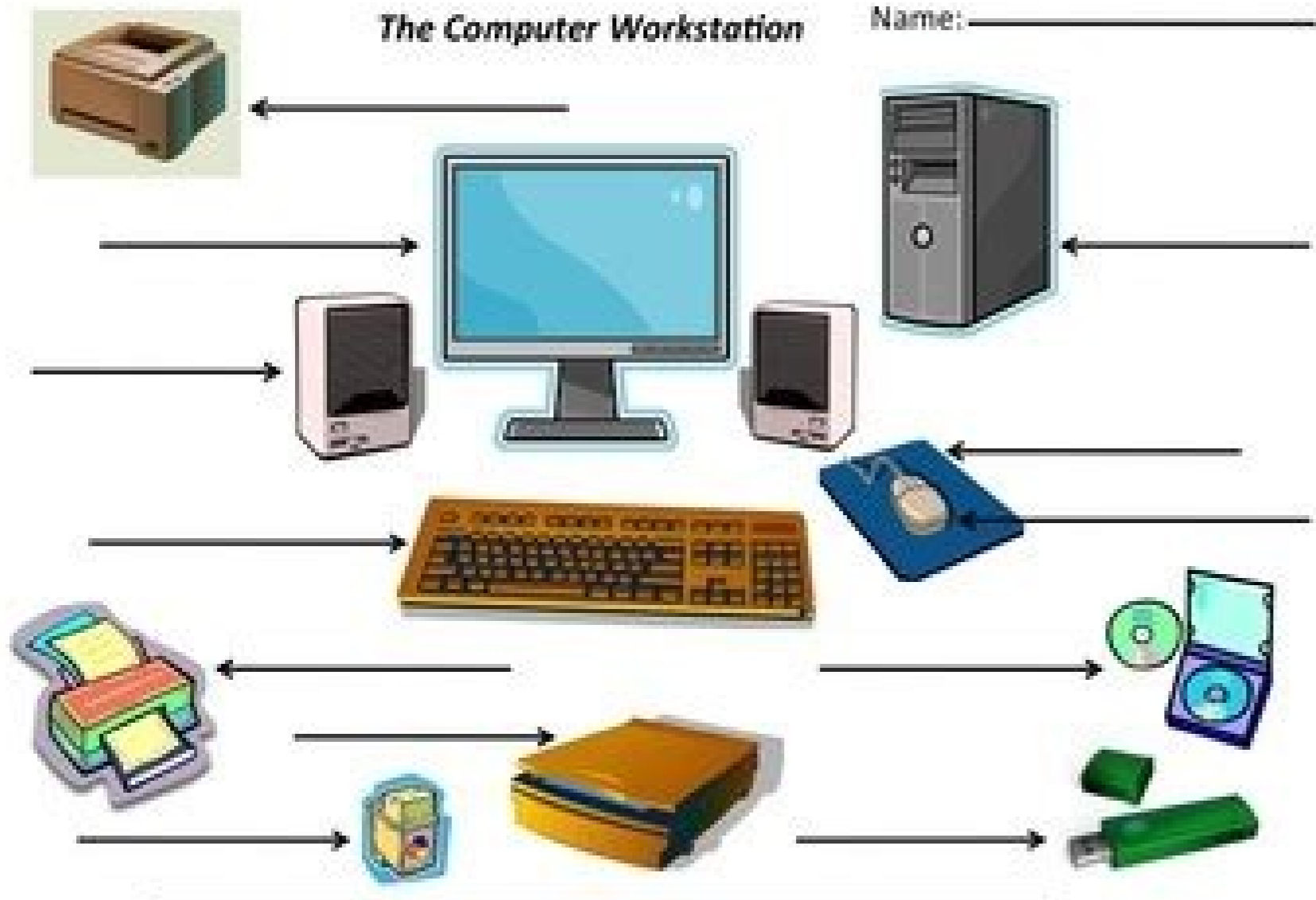


I'm not robot!

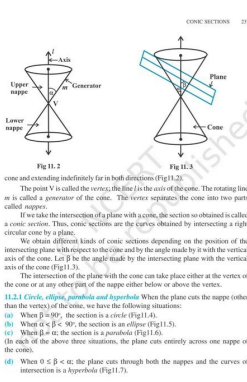
### The Computer Workstation

Name: \_\_\_\_\_



Laser printer ink jet printer monitor speaker computer mouse mousepad keyboard scanner CD ink cartridge flash drive

Graph	Parent Function	Function	Domain and Range	Transformations
	Linear Function	$f(x) = mx + b$	Domain: $(-\infty, \infty)$ Range: $(-\infty, \infty)$	
	Quadratic Function	$f(x) = ax^2 + bx + c$	Domain: $(-\infty, \infty)$ Range: $[\text{min}, \infty)$ or $(-\infty, \text{max}]$	
	Exponential Function	$f(x) = a \cdot b^x + c$	Domain: $(-\infty, \infty)$ Range: $(0, \infty)$	
	Cube Function	$f(x) = x^3$	Domain: $(-\infty, \infty)$ Range: $(-\infty, \infty)$	



$$= \cot^{-1} \left[ \frac{2 \cos \frac{x}{2}}{2 \sin \frac{x}{2}} \right]$$

$$= \cot^{-1} \left[ \cot \frac{x}{2} \right] = \frac{x}{2}$$

प्रश्न 11.

$$\tan^{-1} \left( \frac{\sqrt{1+x} - \sqrt{1-x}}{\sqrt{1+x} + \sqrt{1-x}} \right),$$

$$= \frac{\pi}{4} - \frac{1}{2} \cos^{-1} x, \quad -\frac{1}{\sqrt{2}} \leq x \leq 1.$$

हल:

$$\text{माना } x = \cos 2\theta \Rightarrow 2\theta = \cos^{-1} x$$

$$\Rightarrow \theta = \frac{1}{2} \cos^{-1} x$$

इसलिए,

$$\text{L.H.S.} = \tan^{-1} \left[ \frac{\sqrt{1+x} - \sqrt{1-x}}{\sqrt{1+x} + \sqrt{1-x}} \right]$$

$$= \tan^{-1} \left[ \frac{\sqrt{1+\cos 2\theta} - \sqrt{1-\cos 2\theta}}{\sqrt{1+\cos 2\theta} + \sqrt{1-\cos 2\theta}} \right]$$

$$= \tan^{-1} \left[ \frac{\sqrt{2\cos^2 \theta} - \sqrt{2\sin^2 \theta}}{\sqrt{2\cos^2 \theta} + \sqrt{2\sin^2 \theta}} \right]$$

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### Constant Function

