

Answer Key
Lab - 1

Q.

1, Applet constructed.

2, (i) Change the function to $\sin x$

Edit the value of slider to 1.3

The y co-ordinate of B is the value of $\sin(1.3)$

$$\therefore \sin(1.3) = 0.96 \quad \text{|||}^{\text{r1}} \cos(1.3) = 0.83$$

$$\tan(1.3) = 3.6$$

3, (i) Change the function to 3^x

Edit the value of slider to 1.4

The y-co-ordinate of B is the value of $3^{1.4}$

$$\therefore 3^{1.4} = 4.66$$

$$\text{|||}^{\text{r1}} 4^{1.2} = 5.28, \quad 2^{2.2} = 4.59$$

4, (i) $\sqrt{5} = 2.24$ (change the function to \sqrt{x} and edit the value of x as 5)

$$\sqrt{7} = 2.65$$

$$\sqrt{10} = 3.16$$

5, (a)

(i) Put $x = 9$ then $\frac{1}{7} = 0.14$

(ii) Put $x = 21$ then $\frac{1}{19} = 0.05$

(iii) Put $x = 14$ then $\frac{1}{12} = 0.08$

(b) The blinking light becomes red when $x = 2$, f(x) is not defined