1. Which of the following are correct calculations for difference quotient of:  $d(j)=6\ j+1$   $d(j)=6\ j+1$   $d(j+h)=6\ (h+j)+1$   $=6\ h+6\ j+1$   $d(j+h)=d(j)=(6\ h+6\ j+1)-(6\ (j+1)+1)$ 

$$\begin{split} &\frac{d\,(j+h)-d\,(j)}{h} = \frac{(6\,h+6\,j+1)-(6\,(j+1)+1)}{h} \\ &= \frac{6\,h}{h} \\ &= \frac{h\,(6)}{h} \\ &= 6 \end{split}$$
 
$$= 6$$
 
$$d\,(\,j\,) = 6\,\,j\,+\,1$$
 
$$d\,(\,j+h\,) = 6\,\,(\,h\,+\,j\,)\,\,+\,1$$
 
$$= 6\,h\,+\,6\,\,j\,+\,7$$
 
$$\frac{d\,(\,j+h\,)-d\,(\,j\,)}{h} = \frac{(6\,h+6\,j+7)-(6\,j+1)}{h}$$

$$=6$$

$$d(j) = 6 j + 1$$

$$d(j+h) = 6 (h+j) + 1$$

$$= 6 h + 6 j + 1$$

$$\frac{d(j+h) - d(j)}{h} = \frac{(6 h+6 j+1) - (6 j+1)}{h}$$

$$= \frac{6 h}{h}$$

$$= \frac{h(6)}{h}$$

$$= 6$$

$$d(j) = 6j + 1$$

$$d(j+h) = 6(h+j) + 1$$

$$= 6h + 6j - 5$$

$$\frac{d(j+h) - d(j)}{h} = \frac{(6h+6j+13) - (6j+1)}{h}$$

$$= \frac{6h}{h}$$

$$= \frac{h(6)}{h}$$

$$= 6$$

## Solution

 $=\frac{6 \text{ h}}{\text{h}}$ 

 $=\frac{h(6)}{h}$