3. Which of the following are correct calculations for difference quotient of:  $a(j) = 5 \ j + 8$   $a(j) = 5 \ j + 8$   $a(j+h) = 5 \ (h+j) + 8$ 

```
a (j+h) = 5 (h + j) + 8
= 5 h + 5 j + 8
\frac{a (j+h) - a (j)}{h} = \frac{(5 h+5 j+8) - (5 (j+1) + 8)}{h}
= \frac{5 h}{h}
= \frac{h(5)}{h}
= 5
a (j) = 5 j + 8
a (j+h) = 5 (h + j) + 8
```

$$a(j+h) = 5(h+j) + 8$$

$$= 5h + 5j + 13$$

$$\frac{a(j+h) - a(j)}{h} = \frac{(5h+5j+13) - (5j+8)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

```
a (j) = 5 j + 8
a (j+h) = 5 (h + j) + 8
= 5 h + 5 j + 8
\frac{a (j+h) - a (j)}{h} = \frac{(5 h+5 j+8) - (5 j+8)}{h}
= \frac{5 h}{h}
= \frac{h(5)}{h}
= 5
```

```
a(j) = 5 j + 8
a(j+h) = 5 (h+j) + 8
= 5 h + 5 j + 3
\frac{a(j+h) - a(j)}{h} = \frac{(5h+5j+18) - (5j+8)}{h}
= \frac{5h}{h}
= \frac{h(5)}{h}
= 5
```

## Solution