```
4. Which of the following are correct calculations for difference quotient of: j(m) = 9 m + 8 j(m) = 9 m + 8 j(m+h) = 9 (h+m) + 8 = 9 h + 9 m + 8
```

```
\begin{split} \frac{j \cdot (m+h) - j \cdot (m)}{h} &= \frac{(9 \cdot h + 9 \cdot m + 8) - (9 \cdot (m+1) + 8)}{h} \\ &= \frac{9 \cdot h}{h} \\ &= \frac{h \cdot (9)}{h} \\ &= 9 \end{split}
\begin{aligned} j \cdot (m) &= 9 \cdot m + 8 \\ j \cdot (m+h) &= 9 \cdot (h+m) + 8 \\ &= 9 \cdot h + 9 \cdot m + 17 \\ \frac{j \cdot (m+h) - j \cdot (m)}{h} &= \frac{(9 \cdot h + 9 \cdot m + 17) - (9 \cdot m + 8)}{h} \\ &= \frac{9 \cdot h}{h} \\ &= \frac{h \cdot (9)}{h} \end{aligned}
```

```
 \begin{array}{c} j\;(m) = 9\;m + 8 \\ j\;(m+h) = 9\;(h+m) \; + 8 \\ = 9\;h + 9\;m + 8 \\ \frac{j\;(m+h) - j\;(m)}{h} = \frac{(9\;h + 9\;m + 8) - (9\;m + 8)}{h} \\ = \frac{9\;h}{h} \\ = \frac{h\;(9)}{h} \\ = 9 \end{array}
```

```
\begin{array}{c} j\;(m) = 9\;m + 8\\ j\;(m+h) = 9\;(h+m) + 8\\ = 9\;h + 9\;m - 1\\ \frac{j\;(m+h) - j\;(m)}{h} = \frac{(9\;h+9\;m+26) - (9\;m+8)}{h}\\ = \frac{9\;h}{h}\\ = \frac{h\;(9)}{h}\\ = 9 \end{array}
```

## Solution

=9