2. Which of the following are correct calculations for difference quotient of: $b\left(r\right)=4\ r+5$

$$\begin{array}{l} b \ (r) = 4 \ r + 5 \\ b \ (r+h) = 4 \ (h+r) + 5 \\ = 4 \ h + 4 \ r + 5 \\ \frac{b \ (r+h) - b \ (r)}{h} = \frac{(4 \ h + 4 \ r + 5) - (4 \ (r+1) + 5)}{h} \\ = \frac{4 \ h}{h} \\ = \frac{h \ (4)}{h} \\ = 4 \end{array}$$

$$=4 h + 4 r + 9$$

$$\frac{b(r+h)-b(r)}{h} = \frac{(4 h+4 r+9)-(4 r+5)}{h}$$

$$= \frac{4 h}{h}$$

$$= \frac{h(4)}{h}$$

$$= 4$$

$$b(r) = 4 r + 5$$

$$b(r+h) = 4 (h + r) + 5$$

b(r+h) = 4(h+r) + 5

```
\begin{array}{c} b \ (\ r) = 4 \ r + 5 \\ b \ (\ r + h) = 4 \ (\ h + r) \ + 5 \\ = 4 \ h + 4 \ r + 5 \\ \frac{b \ (r + h) - b \ (r)}{h} = \frac{(4 \ h + 4 \ r + 5) - (4 \ r + 5)}{h} \\ = \frac{4 \ h}{h} \\ = \frac{h \ (4)}{h} \\ = 4 \end{array}
```

```
\begin{array}{c} b\,(\,r) = 4\,\,r + 5 \\ b\,(\,r + h) = 4\,\,(\,h + \,r\,) \,\, + 5 \\ = 4\,\,h + 4\,\,r + 1 \\ \frac{b\,(\,r + h) - b\,(\,r\,)}{h} = \frac{(4\,h + 4\,\,r + 13) - (4\,\,r + 5)}{h} \\ = \frac{4\,h}{h} \\ = \frac{h\,(4)}{h} \\ = 4 \end{array}
```

Solution