difference quotient of: r(a) = 2a + 4r(a) = 2a + 4 r(a+h) = 2(a+h) + 4 = 2a + 2h + 4  $\frac{r(a+h)-r(a)}{h} = \frac{(2a+2h+4)-(2(a+1)+4)}{h}$ 

7. Which of the following are correct calculations for

```
= \frac{2h}{h}
= \frac{h(2)}{h}
= 2
r(a) = 2a + 4
r(a+h) = 2(a+h) + 4
= 2a + 2h + 6
\frac{r(a+h) - r(a)}{h} = \frac{(2a+2h+6) - (2a+4)}{h}
= \frac{2h}{h}
```

$$\begin{array}{c} r\left(a\right) = 2 \; a \; + \; 4 \\ r\left(a + h\right) = 2 \; \left(a \; + \; h\right) \; + \; 4 \\ = 2 \; a \; + \; 2 \; h \; + \; 4 \\ \frac{r\left(a + h\right) - r\left(a\right)}{h} = \frac{\left(2 \; a + 2 \; h + 4\right) - \left(2 \; a + 4\right)}{h} \\ = \frac{2 \; h}{h} \\ = \frac{h\left(2\right)}{h} \\ = 2 \end{array}$$

```
\begin{array}{c} r\left(a\right) = 2 \; a \; + \; 4 \\ r\left(a + h\right) = 2 \; \left(a \; + \; h\right) \; + \; 4 \\ = 2 \; a \; + \; 2 \; h \; + \; 2 \\ \frac{r\left(a + h\right) - r\left(a\right)}{h} = \frac{\left(2 \; a + 2 \; h + 8\right) - \left(2 \; a + 4\right)}{h} \\ = \frac{2 \; h}{h} \\ = \frac{h\left(2\right)}{h} \\ = 2 \end{array}
```

## Solution

 $=\frac{h(2)}{}$ 

=2