

5. Which of the following are correct calculations for difference quotient of:

$$r(n) = 2n + 2$$

$$r(n) = 2n + 2$$

$$r(n+h) = 2(h+n) + 2$$

$$= 2h + 2n + 2$$

$$\frac{r(n+h) - r(n)}{h} = \frac{(2h + 2n + 2) - (2(n+1) + 2)}{h}$$

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

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

$$= 2$$

$$r(n) = 2n + 2$$

$$r(n+h) = 2(h+n) + 2$$

$$= 2h + 2n + 4$$

$$\frac{r(n+h) - r(n)}{h} = \frac{(2h + 2n + 4) - (2n + 2)}{h}$$

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

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

$$= 2$$

$$r(n) = 2n + 2$$

$$r(n+h) = 2(h+n) + 2$$

$$= 2h + 2n + 2$$

$$\frac{r(n+h) - r(n)}{h} = \frac{(2h + 2n + 2) - (2n + 2)}{h}$$

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

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

$$= 2$$

$$r(n) = 2n + 2$$

$$r(n+h) = 2(h+n) + 2$$

$$= 2h + 2n$$

$$\frac{r(n+h) - r(n)}{h} = \frac{(2h + 2n + 6) - (2n + 2)}{h}$$

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

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

$$= 2$$

Solution