

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

$$r(k) = 8k + 8$$

$$r(k) = 8k + 8$$

$$r(k+h) = 8(h+k) + 8$$

$$= 8h + 8k + 8$$

$$\frac{r(k+h) - r(k)}{h} = \frac{(8h + 8k + 8) - (8(k+1) + 8)}{h}$$

$$= \frac{8h}{h}$$

$$= \frac{h(8)}{h}$$

$$= 8$$

$$r(k) = 8k + 8$$

$$r(k+h) = 8(h+k) + 8$$

$$= 8h + 8k + 16$$

$$\frac{r(k+h) - r(k)}{h} = \frac{(8h + 8k + 16) - (8k + 8)}{h}$$

$$= \frac{8h}{h}$$

$$= \frac{h(8)}{h}$$

$$= 8$$

$$r(k) = 8k + 8$$

$$r(k+h) = 8(h+k) + 8$$

$$= 8h + 8k + 8$$

$$\frac{r(k+h) - r(k)}{h} = \frac{(8h + 8k + 8) - (8k + 8)}{h}$$

$$= \frac{8h}{h}$$

$$= \frac{h(8)}{h}$$

$$= 8$$

$$r(k) = 8k + 8$$

$$r(k+h) = 8(h+k) + 8$$

$$= 8h + 8k$$

$$\frac{r(k+h) - r(k)}{h} = \frac{(8h + 8k + 24) - (8k + 8)}{h}$$

$$= \frac{8h}{h}$$

$$= \frac{h(8)}{h}$$

$$= 8$$

Solution