

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

$$r(u) = 8u + 9$$

$$r(u) = 8u + 9$$

$$r(u+h) = 8(h+u) + 9$$

$$= 8h + 8u + 9$$

$$\frac{r(u+h) - r(u)}{h} = \frac{(8h + 8u + 9) - (8(u+1) + 9)}{h}$$

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

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

$$= 8$$

$$r(u) = 8u + 9$$

$$r(u+h) = 8(h+u) + 9$$

$$= 8h + 8u + 17$$

$$\frac{r(u+h) - r(u)}{h} = \frac{(8h + 8u + 17) - (8u + 9)}{h}$$

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

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

$$= 8$$

$$r(u) = 8u + 9$$

$$r(u+h) = 8(h+u) + 9$$

$$= 8h + 8u + 9$$

$$\frac{r(u+h) - r(u)}{h} = \frac{(8h + 8u + 9) - (8u + 9)}{h}$$

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

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

$$= 8$$

$$r(u) = 8u + 9$$

$$r(u+h) = 8(h+u) + 9$$

$$= 8h + 8u + 1$$

$$\frac{r(u+h) - r(u)}{h} = \frac{(8h + 8u + 25) - (8u + 9)}{h}$$

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

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

$$= 8$$

Solution