

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

$$u(y) = 5y + 5$$

$$u(y) = 5y + 5$$

$$u(y+h) = 5(h+y) + 5$$

$$= 5h + 5y + 5$$

$$\frac{u(y+h) - u(y)}{h} = \frac{(5h + 5y + 5) - (5(y+1) + 5)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

$$u(y) = 5y + 5$$

$$u(y+h) = 5(h+y) + 5$$

$$= 5h + 5y + 10$$

$$\frac{u(y+h) - u(y)}{h} = \frac{(5h + 5y + 10) - (5y + 5)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

$$u(y) = 5y + 5$$

$$u(y+h) = 5(h+y) + 5$$

$$= 5h + 5y + 5$$

$$\frac{u(y+h) - u(y)}{h} = \frac{(5h + 5y + 5) - (5y + 5)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

$$u(y) = 5y + 5$$

$$u(y+h) = 5(h+y) + 5$$

$$= 5h + 5y$$

$$\frac{u(y+h) - u(y)}{h} = \frac{(5h + 5y + 15) - (5y + 5)}{h}$$

$$= \frac{5h}{h}$$

$$= \frac{h(5)}{h}$$

$$= 5$$

Solution