

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

$$f(u) = 2u + 3$$

$$f(u) = 2u + 3$$

$$f(u+h) = 2(h+u) + 3$$

$$= 2h + 2u + 3$$

$$\frac{f(u+h) - f(u)}{h} = \frac{(2h+2u+3) - (2(u+1)+3)}{h}$$

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

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

$$= 2$$

$$f(u) = 2u + 3$$

$$f(u+h) = 2(h+u) + 3$$

$$= 2h + 2u + 5$$

$$\frac{f(u+h) - f(u)}{h} = \frac{(2h+2u+5) - (2u+3)}{h}$$

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

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

$$= 2$$

$$f(u) = 2u + 3$$

$$f(u+h) = 2(h+u) + 3$$

$$= 2h + 2u + 3$$

$$\frac{f(u+h) - f(u)}{h} = \frac{(2h+2u+3) - (2u+3)}{h}$$

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

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

$$= 2$$

$$f(u) = 2u + 3$$

$$f(u+h) = 2(h+u) + 3$$

$$= 2h + 2u + 1$$

$$\frac{f(u+h) - f(u)}{h} = \frac{(2h+2u+7) - (2u+3)}{h}$$

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

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

$$= 2$$

Solution