

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

$$x(u) = 5u + 9$$

$$x(u) = 5u + 9$$

$$x(u+h) = 5(h+u) + 9$$

$$= 5h + 5u + 9$$

$$\frac{x(u+h) - x(u)}{h} = \frac{(5h + 5u + 9) - (5(u+1) + 9)}{h}$$

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

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

$$= 5$$

$$x(u) = 5u + 9$$

$$x(u+h) = 5(h+u) + 9$$

$$= 5h + 5u + 14$$

$$\frac{x(u+h) - x(u)}{h} = \frac{(5h + 5u + 14) - (5u + 9)}{h}$$

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

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

$$= 5$$

$$x(u) = 5u + 9$$

$$x(u+h) = 5(h+u) + 9$$

$$= 5h + 5u + 9$$

$$\frac{x(u+h) - x(u)}{h} = \frac{(5h + 5u + 9) - (5u + 9)}{h}$$

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

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

$$= 5$$

$$x(u) = 5u + 9$$

$$x(u+h) = 5(h+u) + 9$$

$$= 5h + 5u + 4$$

$$\frac{x(u+h) - x(u)}{h} = \frac{(5h + 5u + 19) - (5u + 9)}{h}$$

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

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

$$= 5$$

Solution