

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

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

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

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

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

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

$$= \frac{3h}{h}$$

$$= \frac{h(3)}{h}$$

$$= 3$$

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

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

$$= 3h + 3u + 5$$

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

$$= \frac{3h}{h}$$

$$= \frac{h(3)}{h}$$

$$= 3$$

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

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

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

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

$$= \frac{3h}{h}$$

$$= \frac{h(3)}{h}$$

$$= 3$$

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

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

$$= 3h + 3u - 1$$

$$\frac{z(u+h) - z(u)}{h} = \frac{(3h + 3u + 8) - (3u + 2)}{h}$$

$$= \frac{3h}{h}$$

$$= \frac{h(3)}{h}$$

$$= 3$$

**Solution**