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

$k(x) = 9x + 1$

$k(x) = 9x + 1$

$k(x+h) = 9(h + x) + 1$

$= 9h + 9x + 1$

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

$$= \frac{9h}{h}$$

$$= \frac{h(9)}{h}$$

$= 9$

$k(x) = 9x + 1$

$k(x+h) = 9(h + x) + 1$

$= 9h + 9x + 10$

$$\frac{k(x+h) - k(x)}{h} = \frac{(9h + 9x + 10) - (9x + 1)}{h}$$

$$= \frac{9h}{h}$$

$$= \frac{h(9)}{h}$$

$= 9$

$k(x) = 9x + 1$

$k(x+h) = 9(h + x) + 1$

$= 9h + 9x + 1$

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

$$= \frac{9h}{h}$$

$$= \frac{h(9)}{h}$$

$= 9$

$k(x) = 9x + 1$

$k(x+h) = 9(h + x) + 1$

$= 9h + 9x - 8$

$$\frac{k(x+h) - k(x)}{h} = \frac{(9h + 9x + 19) - (9x + 1)}{h}$$

$$= \frac{9h}{h}$$

$$= \frac{h(9)}{h}$$

$= 9$

Solution