Part 2:

(AO) Cafe location = 0 Km      Price = $4
(BO) Cafe location = 10 Km     Price = $5

$10 - x$ = distance from location

Calculating score:
    Score AO :  $28 - x - (3 \cdot price)$
                $= 28 - x - (3 \cdot 4)$
                $= 28 - x - 12$
                $= 16 - x$
    Score BO :  $28 - (10 - x) - (3 \cdot price)$
                $= 28 - (10 - x) - (3 \cdot 5)$
                $= 28 - (10 - x) - 15$
                $= 3 + x$

Probability :
    AO :  $(16 - x) / (16 - x) + (3 + x)$
       $= (16 - x) / 19$
    BO :  $(3 + x) / (16 - x) + (3 + x)$
       $= (3 + x) / 19$

    average location = 5
    average profit would be at average location

① Score AO:
    $16 - x$
    $16 - (5) = 11$

② Probability AO:
$$\frac{(16 - x)}{19} = \frac{16 - 5}{19} = \frac{11}{19}$$

③    $11/19 = 58\%$

④ Price - Cost = Profit
    $4 - 2 = \$2$

Average Profit :
    $\$2 \times .58 = \boxed{\$1.16}$