

$$\textcircled{1} \quad P(X) = X^3 - 2X^2 + 3X - 4$$

$$\begin{array}{r} 38 \mid 2 \\ 19 \mid 19 \\ \hline 1 \end{array}$$

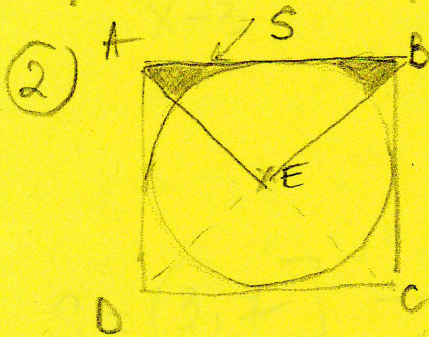
AD 2 FEB/MARCH
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$$P(4) - P(2) = 38$$

$$P(4) = 4^3 - 2 \cdot 4^2 + 3 \cdot 4 - 4 = 64 - 32 + 12 - 4 = 40$$

$$P(2) = 2^3 - 2 \cdot 2^2 + 3 \cdot 2 - 4 = 2$$

Answer = 19 \rightarrow B



$$r = 2 \Rightarrow AB = 4$$

$$\text{Area}_{ABCD} = 4 \cdot 4 = 16$$

$$\text{Area circle} = 2\pi \cdot 2 = 4\pi$$

$$4S = \text{Area}_{ABCD} - \text{Area circle}$$

$$4S = 16 - 4\pi$$

$$S = 4 - \pi$$

Answer = $4 - \pi$ \rightarrow C

$$\textcircled{3} \quad \left. \begin{array}{l} ax + b = 10 \\ x = 2 \text{ solution} \end{array} \right\} \Rightarrow 2a + b = 10$$

$$\left. \begin{array}{l} bx + a = 8 \\ x = 3 \text{ solution} \end{array} \right\} \Rightarrow 3b + a = 8$$

$$\begin{cases} 2a + b = 10 \\ 3b + a = 8 \end{cases} \Rightarrow \begin{cases} 2a + b = 10 \\ a + 3b = 8 \end{cases} \begin{array}{l} | -2 \\ \hline \end{array} \begin{cases} 2a + b = 10 \\ -2a - 6b = -16 \end{cases}$$

$$-5b = -6$$

$$2a + b = 10$$

$$b = \frac{6}{5}$$

$$2a + \frac{6}{5} = 10$$

$$2a = 10 - \frac{6}{5} = \frac{44}{5}$$

$$a = \frac{22}{5}$$

$$a + b = \frac{28}{5}$$

Answer $\frac{28}{5} \rightarrow$ B