

$$f(x) = \int f'(x) \cdot dx = k \cdot \left(\frac{1}{20} x^5 - \frac{7}{4} x^4 + 15 x^3 \right) + C$$

$$\textcircled{1} f(0) = 0$$

$$\textcircled{1} \boxed{C = 0}$$

$$\textcircled{2} f(18) = -9$$

$$\textcircled{2} -9 = k \cdot \left(\frac{1889568}{20} - \frac{734832}{4} + 87480 \right) + C$$

$$-9 = k \cdot \left(\frac{1889568}{20} - \frac{2674160}{20} + \frac{1746000}{20} \right) + C$$

$$-9 = k \cdot \frac{-34442}{20} + C$$

$$\textcircled{1} \text{ in } \textcircled{2}$$

$$\Rightarrow -9 = k \cdot \left(\frac{-34442}{20} \right)$$

$$1 = k \cdot \frac{3888}{20}$$

$$1 = k \cdot \frac{972}{5}$$

$$\boxed{k = \frac{5}{972}}$$

$$f(x) = \frac{5}{972} \cdot \left(\frac{1}{20} x^5 - \frac{7}{4} x^4 + 15 x^3 \right)$$

$$\boxed{f(x) = \frac{1}{3888} x^5 - \frac{35}{3888} x^4 + \frac{25}{324} x^3}$$

$$W_1(6/7)$$

$$W_2(15/32)$$

$$f(6) = 2 - \frac{45360}{3888} + \frac{5400}{324}$$

$$f(6) = 2 - \frac{180}{3} + \frac{50}{3}$$

$$f(6) = 2 - \frac{35}{3} + \frac{50}{3}$$

$$\boxed{f(6) = 7} \Rightarrow W_1(6/7)$$