

Set #27Section 7.67.6

(3) Area under curve of x^3 from 2 to 3

$$\int_2^3 x^3 dx = \left. \frac{x^4}{4} \right|_2^3 = \boxed{16.25}$$

(5) Area under curve of \sqrt{x} from 1 to 9

$$\int_1^9 \sqrt{x} dx = \int_1^9 x^{1/2} dx = \left. \frac{2}{3} x^{3/2} \right|_1^9 = \boxed{17\frac{1}{3}}$$