

## 定積分の計算 1

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組 番 氏名 \_\_\_\_\_

(1)  $\int_1^4 3\sqrt{x} dx$

(3)  $\int_1^3 2^x dx$

$$\int 2^x dx = \boxed{\phantom{000}} \text{ より}$$

答 \_\_\_\_\_

(2)  $\int_0^\pi \sin 3\theta \cos 2\theta d\theta$

$$\sin 3\theta \cos 2\theta = \boxed{\phantom{000}} \text{ より}$$

答 \_\_\_\_\_

(4)<sup>\*1</sup>  $\int_0^1 \frac{dx}{x^2 + 1}$

$$\int \frac{dx}{x^2 + 1} = \boxed{\phantom{000}} \text{ より}$$

答 \_\_\_\_\_

答 \_\_\_\_\_

<sup>\*1</sup>  $x = \tan \theta$  と置いててもよい

$$(5) \quad \int_1^2 (2x - 2)^3 dx$$

$$(7) \quad \int_1^2 xe^x dx$$

$$\int xe^x dx = \boxed{\phantom{000}}$$

答 \_\_\_\_\_

$$(6) \quad \int_0^1 \sqrt{4 - x^2} dx$$

$$x = \boxed{\phantom{000}} \text{ とおくと }$$

答 \_\_\_\_\_

$$(8) \quad \int_0^\pi (x + 1) \cos x dx$$

$$\int (x + 1) \cos x dx = \boxed{\phantom{000}}$$

答 \_\_\_\_\_

答 \_\_\_\_\_