

integrali 10

(1) 1

MULTIPLE CHOICE

marked out of 1.0

penalty 0.10

One answer only

Shuffle

Calcolare

$$\int_0^1 x(x-1)(x-2) dx$$

- $\frac{1}{4}$ ✓
- 4
- $\frac{1}{3}$
- 3

(2) 2

MULTIPLE CHOICE

marked out of 1.0

penalty 0.10

One answer only

Shuffle

Calcolare

$$\int_0^1 \frac{1}{1+(1-x)^2} dx$$

- $\frac{\pi}{4}$ ✓
- $-\frac{\pi}{4}$
- $\frac{\pi}{2}$
- $-\frac{\pi}{2}$

(3) 3

MULTIPLE CHOICE

marked out of 1.0

penalty 0.10

One answer only

Shuffle

Calcolare

$$\int_0^1 \sqrt[5]{\sqrt{x} \cdot \sqrt[3]{x}} dx$$

- $\frac{6}{7}$ ✓
- $\frac{5}{6}$
- $\frac{6}{7}$
- $\frac{6}{6}$
- $\frac{6}{5}$

(4) 4

MULTIPLE CHOICE

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One answer only

Shuffle

Calcolare

$$\int_0^{\frac{\pi}{3}} \frac{\sin x \cdot \ln \cos x}{\cos x} dx$$

- $-\frac{\ln^2 2}{2}$ ✓
- 0
- 1
- $-\frac{\pi}{4}$

(5) **5**

MULTIPLE CHOICE marked out of 1.0 penalty 0.10 One answer only Shuffle

Calcolare

$$\int_0^1 x \cdot \sqrt[3]{1-x^2} dx$$

- $\frac{3}{8}$ ✓
- $\frac{3}{8}$
- $\frac{8}{3}$
- $-\frac{8}{3}$

(6) **6**

MULTIPLE CHOICE marked out of 1.0 penalty 0.10 One answer only Shuffle

Calcolare

$$\int_0^{2\pi} \sin^3 x dx$$

- 0 ✓
- $\frac{1}{3}$
- $\frac{\pi}{2}$
- π

(7) **7**

MULTIPLE CHOICE marked out of 1.0 penalty 0.10 One answer only Shuffle

Calcolare

$$\int_0^{\pi} \sin^4 x dx$$

- $\frac{3\pi}{8}$ ✓
- $\frac{\pi}{2}$

- $\frac{1}{2}$
- $\frac{2\pi}{3}$

(8) 8

MULTIPLE CHOICE marked out of 1.0 penalty 0.10 One answer only Shuffle

Calcolare

$$\int_{\frac{1}{3}}^{\frac{1}{2}} \frac{1}{x^3 - x^4} dx$$

- $\ln 2 + \frac{7}{2} \checkmark$
- $\ln \frac{3}{2} - \frac{1}{5}$
- $\operatorname{arctg} 2 - \frac{2}{3}$
- $\ln \frac{2}{3} + \frac{5}{3}$

(9) 9

MULTIPLE CHOICE marked out of 1.0 penalty 0.10 One answer only Shuffle

Calcolare

$$\int_0^1 \frac{1}{(1+x^2)^2} dx$$

- $\frac{2+\pi}{8} \checkmark$
- $\frac{\pi}{2}$
- $2\sqrt{2} - \frac{\pi}{2}$
- $\sqrt{2\pi} - 2$

(10) 10

MULTIPLE CHOICE marked out of 1.0 penalty 0.10 One answer only Shuffle

Calcolare

$$\int_0^1 \frac{1}{4+x^4} dx$$

- $\frac{\ln 5 + 2\operatorname{arctg} 2}{16} \checkmark$
- $\frac{2\ln 2 - \pi}{16}$
- $\frac{\ln 3 - \sqrt{\pi}}{16}$
- $\frac{\ln(2+\pi) - \ln(2-\pi)}{16}$

Total of marks: 10