

# Integral definido

Irene

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## Enunciado

Calcule o integral definido

$$\int_2^3 (1 - 2x)^3 dx.$$

## Sugestion

Utilize a fórmula ... .

## Resolution

Calculando o integral

$$\int_2^3 (1 - 2x)^3 dx,$$

obtém-se

$$\begin{aligned} & \int_2^3 (1 - 2x)^3 dx \\ &= \left[ \frac{(1 - 2x)^{3+1}}{-2(3+1)} \right]_2^3 = \frac{(-5)^4 - (-3)^4}{-8} \\ &= \frac{544}{-8} = -68. \end{aligned}$$

## Result

$$\begin{aligned} & \int_2^3 (1 - 2x)^3 dx \\ &= -68. \end{aligned}$$

## Obs

### Random choices

```
e2 | ratsimp(#a*#d + #b) | -3
e1 | ratsimp(#a*#e + #b) | -5
e | 3 | 3
e6 | ratsimp(#e5/#e3) | -68
a | -2 | -2
v | ((#a*x + #b)^(#c + 1))/(#a * (#c + 1)) | -(1-2*x)^4/8
d | 2 | 2
e7 | ratsimp(#a*x + #b) | 1-2*x
c | 3 | 3
u | (#a*x + #b)^#c | (1-2*x)^3
e4 | ratsimp(#c + 1) | 4
b | 1 | 1
e3 | ratsimp(#a*(#c + 1)) | -8
e5 | ratsimp(#e1^#e4-#e2^#e4) | 544
```