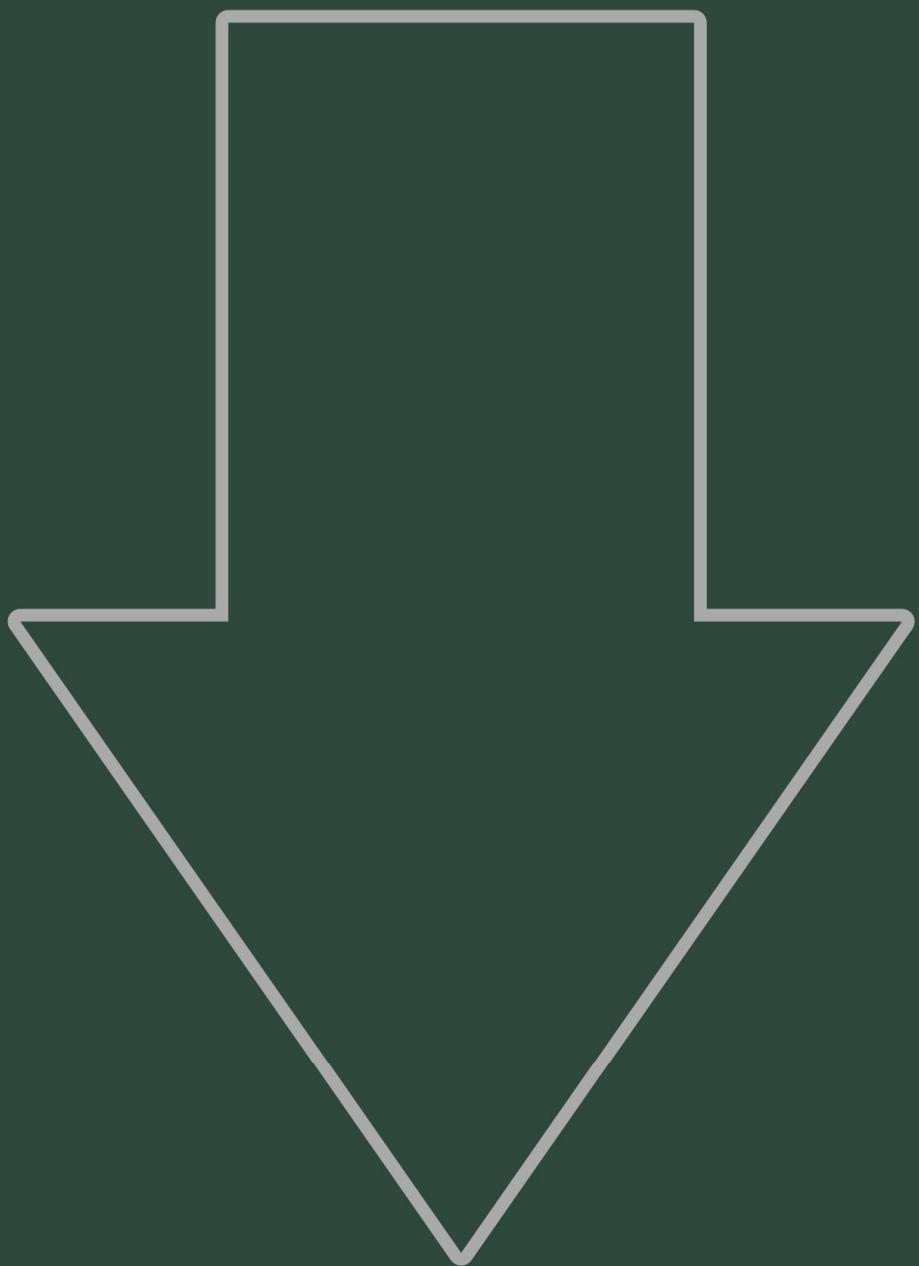


# 1869 MIT

## Entrance Exam

Reduce  
to Lowest Terms

$$\frac{x^6 + a^2x^3y}{x^6 - a^4y^2}$$



----- Q U E S T I O N -----

Réduire (au maximum):

$$x^6 + a^2x^3y$$

-----

$$x^6 - a^4y^2$$

----- R É P O N S E -----

$$x^6 + a^2x^3y$$

-----

$$x^6 - a^4y^2$$

action sur le numérateur:

- $x^6 + a^2x^3y$

- $x^3 \cdot (x^3 + a^2y)$

action sur le dénominateur:

- $x^6 - a^4y^2$

- $(x^3)^2 - (a^2)^2y^2$

- $(x^3 - a^2y) \cdot (x^3 + a^2y)$

annulation du terme  $(x^3 + a^2y)$ :

$$\frac{x^3 \cdot (x^3 + a^2y)}{(x^3 - a^2y) \cdot (x^3 + a^2y)} = \frac{x^3}{x^3 - a^2y}$$

résultat final:

$$\boxed{\frac{x^6 + a^2x^3y}{x^6 - a^4y^2} = \frac{x^3}{x^3 - a^2y}}$$