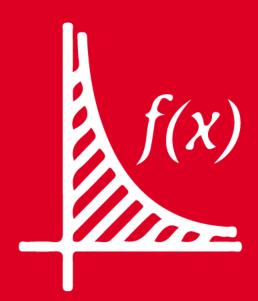


# ALGEBRA

2th

SECONDARY



**ASESORIA SESION 1** 

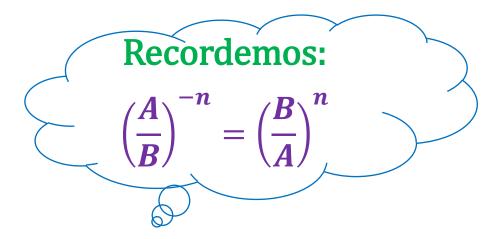






### **Efectuar**

$$P = \frac{\left(\frac{1}{3}\right)^{-3} + \left(\frac{1}{2}\right)^{-5} + \left(\frac{1}{5}\right)^{-2}}{\left(\frac{1}{20}\right)^{-1} - \left(\frac{1}{8}\right)^{-1}}$$



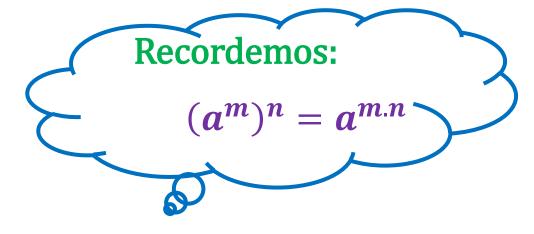
$$P = \frac{3^3 + 2^5 + 5^2}{20^1 - 8^1} = \frac{27 + 32 + 25}{20 - 8} = \frac{84}{12}$$

$$\therefore P = 7$$



# **Simplifique**

$$T = \frac{9^{n+1}.27^{2n+3}}{81^{2n+2}}$$



### Resolución:

Descomponiendo las bases:

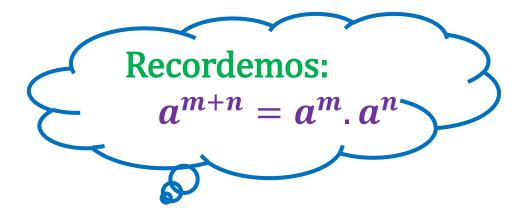
$$T = \frac{\left(3^{2}\right)^{n+1} \cdot \left(3^{3}\right)^{2n+3}}{(3^{4})^{2n+2}} = \frac{3^{2n+2} \cdot 3^{6n+9}}{3^{8n+8}} = \frac{3^{8n+11}}{3^{8n+8}} = 3^{3}$$

$$\therefore T=27$$



### Reduzca

$$W = \frac{2^{5m+3} - 2^{5m+1} + 2^{5m+2}}{2^{5m+1}}$$



$$W = \frac{2^{5m} \cdot 2^3 - 2^{5m} \cdot 2^1 + 2^{5m} \cdot 2^2}{2^{5m} \cdot 2^1} = \frac{2^{5m} (2^3 - 2^1 + 2^2)}{2^{5m} \cdot 2^1}$$

$$W = \frac{8-2+4}{2} = \frac{10}{2}$$

$$\therefore W = 5$$



### 4

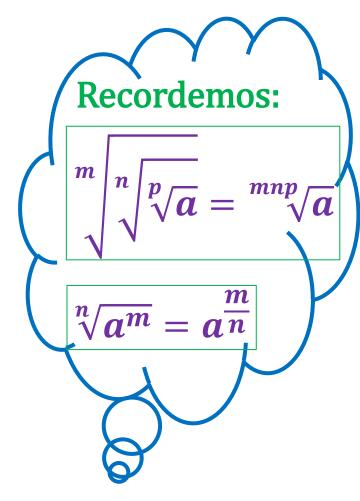
### Calcule el valor de

# $A = \sqrt{5} \sqrt{7} \sqrt{5} \sqrt{7} \sqrt{7^{105}}$

$$A = \sqrt[5.\sqrt{7}.\sqrt{5}.\sqrt{7}]{7^{105}} = \sqrt[5.7]{7^{105}}$$

$$A = \sqrt[35]{7^{105}} = 7^{\frac{105}{35}} = 7^3$$

$$\therefore A = 343$$





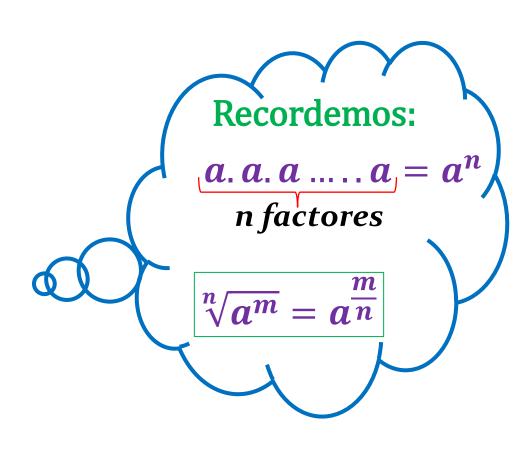


## Simplifique

$$P = \sqrt[5]{\frac{\sqrt{2}.\sqrt{2}.\sqrt{2}....\sqrt{2} (32 factores)}{\sqrt[3]{2}.\sqrt[3]{2}.\sqrt[3]{2}....\sqrt[3]{2} (33 factores)}}$$

$$P = \sqrt[5]{\frac{\sqrt{2}^{32}}{\sqrt[3]{2}^{33}}} = \sqrt[5]{\frac{2^{16}}{2^{11}}} = \sqrt[5]{2^{5}}$$

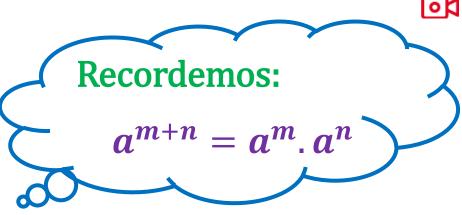
$$\therefore P=2$$





### Determine el valor de "x"

$$2^{x+4} + 2^{x+1} + 2^x = 608$$



$$2^x \cdot 2^4 + 2^x \cdot 2^1 + 2^x = 608$$

$$2^{x}(2^{4}+2^{1}+1)=608$$

$$2^{x}(16+2+1)=608$$

$$2^{x}(19) = 608$$

$$2^x = \frac{608}{19}$$

$$2^x = 32$$

$$2^x = 2^5$$

$$\therefore x = 5$$





### Determine el valor de "x"

$$\left(\frac{3}{5}\right)^{3x-12}=1$$

$$\left(\frac{3}{5}\right)^{3x-12} = 1 = \left(\frac{3}{5}\right)^{0}$$



$$3x - 12 = 0$$

$$\therefore x = 4$$





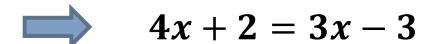


### Determine el valor de "x"

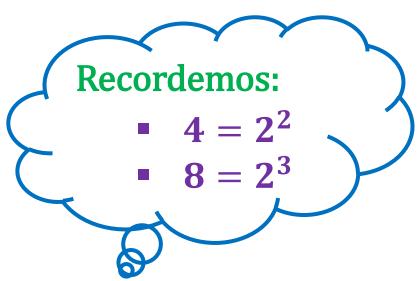
$$4^{2x+1} = 8^{x-1}$$

$$\left(2^{2}\right)^{2x+1} = \left(2^{3}\right)^{x-1}$$





$$\therefore x = -5$$







# Simplifique

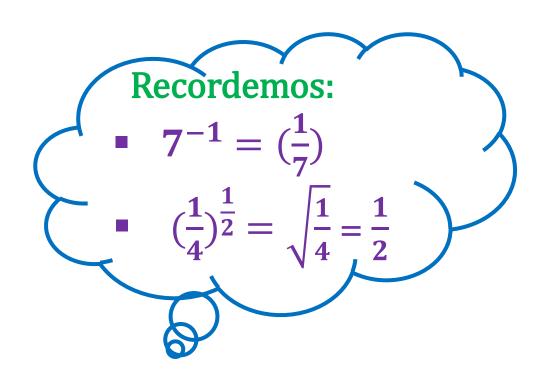
$$W = 25^{8^{-27^{-3}^{-1}}}$$

$$W = 25^{8^{-27}^{-\frac{1}{3}}}$$

$$W = 25^{8^{-\frac{1}{3}}}$$

$$W = 25^{\frac{1}{2}} = \sqrt{25}$$

$$\therefore W = 5$$





# **10**

### Indique el exponente final de "x"

$$\mathbf{P} = \sqrt[3]{x^3 \cdot \sqrt{x^4 \cdot \sqrt{x}}} \cdot \sqrt[12]{x^3}$$

$$P = \sqrt[3]{x^3 \cdot \sqrt[2]{x^4 \cdot \sqrt[2]{x^1}}} \cdot \sqrt[12]{x^3} ; x \neq 0$$

$$P = \sqrt[3.2.2]{x^{(3.2+4)2+1}} \cdot \sqrt[12]{x^3}$$

$$P = \sqrt[12]{x^{21}} \cdot \sqrt[12]{x^3}$$

### Recordemos

$$\int_{1}^{m} x^{a} \cdot \int_{1}^{n} x^{b} \cdot \int_{1}^{p} \sqrt{x^{c}} = \int_{1}^{mnp} \sqrt{x^{(an+b)p+c}}$$

$$P = \sqrt[12]{x^{21}.x^3}$$

$$P = \sqrt[12]{x^{24}}. = x^2$$

$$\therefore P=2$$