

NÚMEROS REALES

Calcula sin simplificar

$$a) \left(\frac{9}{4}\right)^2 = \frac{\boxed{}}{\boxed{}}$$

$$b) \left(\frac{2}{3}\right)^5 = \frac{\boxed{}}{\boxed{}}$$

$$c) \left(\frac{3}{2}\right)^4 + \frac{9}{16} = \frac{\boxed{}}{\boxed{}}$$

EJEMPLO

$$(6/3)^2 = 12/9$$

Completa los valores calculados de las siguientes potencias:

A) $16^{\frac{3}{2}}$

$$\begin{aligned} 16^{\frac{3}{2}} &= (16^3)^{\frac{1}{2}} \\ &= \sqrt{\boxed{}^3} \\ &= \sqrt{(\boxed{}^4)^3} \\ &= \sqrt{2^{12}} = 2^{\boxed{}} \\ &= \boxed{} \end{aligned}$$

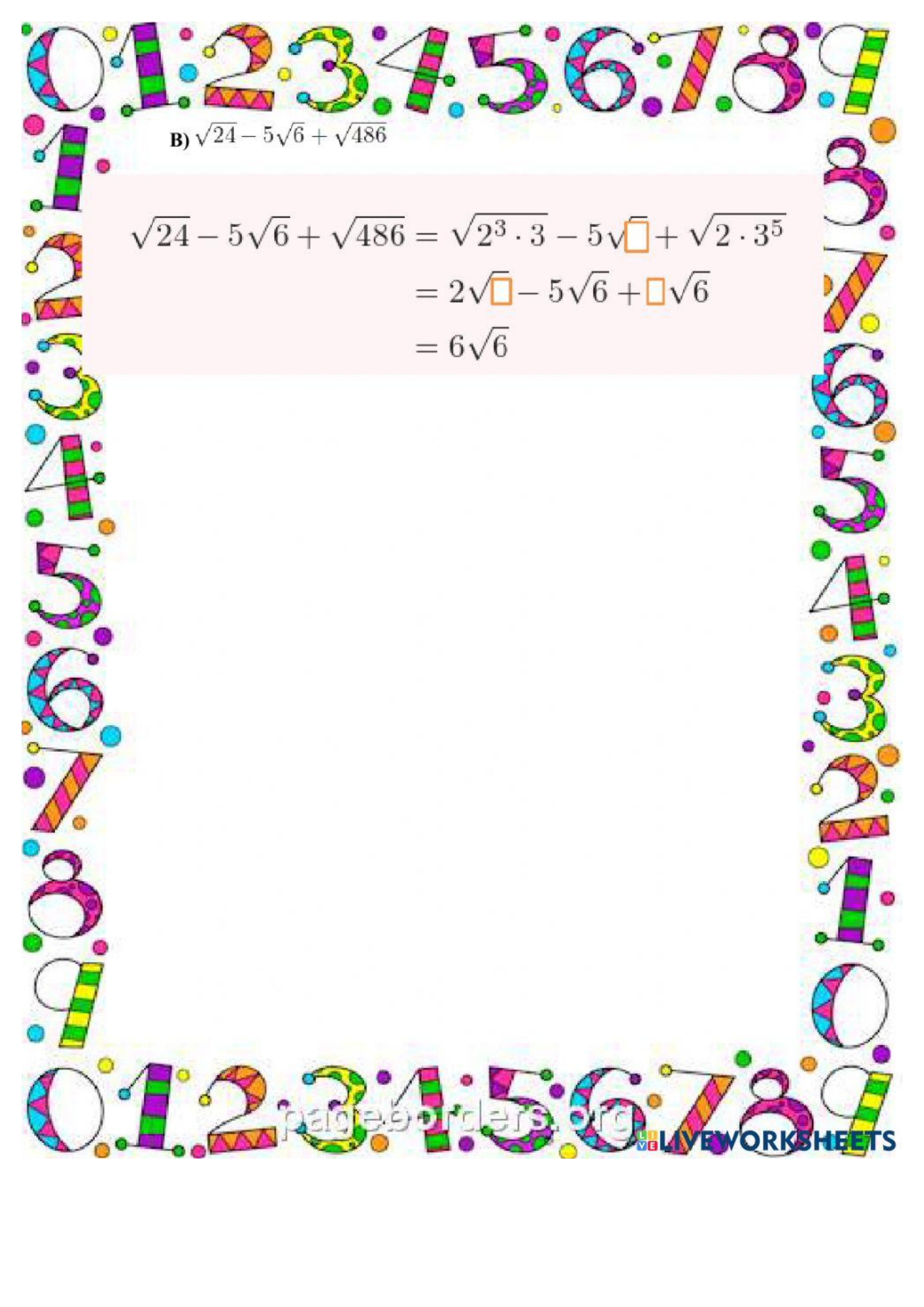
B) $8^{\frac{2}{3}}$

$$\begin{aligned}8^{\frac{2}{3}} &= (8^2)^{\frac{1}{3}} \\&= \sqrt[3]{8^2} \\&= \sqrt[3]{(\square^3)^2} \\&= \sqrt[3]{2\square} \\&= 2^2 \\&= \square\end{aligned}$$

Completa las siguientes sumas de radicales

A) $2\sqrt{12} - 3\sqrt{75} + \sqrt{27}$

$$\begin{aligned}2\sqrt{12} - 3\sqrt{75} + \sqrt{27} &= 2\sqrt{2^2 \cdot \square} - \square\sqrt{3 \cdot 5^2} + \sqrt{3^3} \\&= 4\sqrt{\square} - 15\sqrt{3} + 3\sqrt{\square} \\&= -8\sqrt{3}\end{aligned}$$



B) $\sqrt{24} - 5\sqrt{6} + \sqrt{486}$

$$\begin{aligned}\sqrt{24} - 5\sqrt{6} + \sqrt{486} &= \sqrt{2^3 \cdot 3} - 5\sqrt{\square} + \sqrt{2 \cdot 3^5} \\ &= 2\sqrt{\square} - 5\sqrt{6} + \square\sqrt{6} \\ &= 6\sqrt{6}\end{aligned}$$