

Nome: \_\_\_\_\_

Valor: 16 • Nota: \_\_\_\_\_

**Potenciação**

1. Simplifique as expressões:

[6]

(a)  $144 \cdot 256$

(b)  $1024 \cdot 512$

(c)  $\frac{a^{21}}{a^{17}}$

(d)  $\frac{a^{27} - a^3}{a^2 \cdot a}$

(e)  $\frac{b^7 a^6}{(ab)^5}$

(f)  $\frac{20^{2022} - 20}{32 \cdot 10^2}$

2. Simplifique as expressões:

[10]

(a)  $\frac{\sqrt{144}}{\sqrt{3}}$

(b)  $\sqrt{69}\sqrt{42}$

(c)  $\sqrt{8}\sqrt{8}$

(d)  $4\sqrt[3]{8}\sqrt{42}$

[2]

(e)  $\frac{\sqrt{48} + \sqrt{27}}{\sqrt{3}}$

(f)  $\frac{\sqrt{160} + \sqrt{125}}{\sqrt{19} + 1}$

(g)  $(123)^{\frac{3}{2}} \cdot (40425)^{-\frac{1}{5}}$

[3]