

**Lista de exercícios – Potenciação e Radiciação de Frações**

1)

a) $\left(\frac{2}{3}\right)^2 = \frac{2^2}{3^2} = \frac{4}{9}$

b) $\left(\frac{4}{7}\right)^2 = \frac{4^2}{7^2} = \frac{16}{49}$

c) $\left(\frac{7}{5}\right)^2 = \frac{7^2}{5^2} = \frac{49}{25}$

d) $\left(\frac{1}{3}\right)^2 = \frac{1^2}{3^2} = \frac{1}{9}$

e) $\left(\frac{5}{3}\right)^2 = \frac{5^2}{3^2} = \frac{25}{9}$

f) $\left(\frac{7}{30}\right)^0 = 1$ (Qualquer número, exceto zero, elevado a zero é igual a 1)

g) $\left(\frac{9}{5}\right)^1 = \frac{9}{5}$ (Qualquer número elevado a 1 é igual a ele mesmo)

h) $\left(\frac{2}{3}\right)^3 = \frac{2^3}{3^3} = \frac{8}{27}$

i) $\left(\frac{1}{5}\right)^3 = \frac{1^3}{5^3} = \frac{1}{125}$

j) $\left(\frac{1}{2}\right)^2 = \frac{1^2}{2^2} = \frac{1}{4}$

k) $\left(\frac{2}{3}\right)^4 = \frac{2^4}{3^4} = \frac{16}{81}$

l) $\left(\frac{2}{5}\right)^1 = \frac{2}{5}$

m) $\left(\frac{3}{11}\right)^2 = \frac{3^2}{11^2} = \frac{9}{121}$

n) $\left(\frac{9}{4}\right)^0 = 1$

o) $\left(\frac{12}{13}\right)^2 = \frac{12^2}{13^2} = \frac{144}{169}$

p) $\left(\frac{1}{2}\right)^5 = \frac{1^5}{2^5} = \frac{1}{32}$

q) $\left(\frac{3}{7}\right)^3 = \frac{3^3}{7^3} = \frac{27}{343}$

2)

a) $\sqrt{\frac{9}{16}} = \frac{\sqrt{9}}{\sqrt{16}} = \frac{3}{4}$

b) $\sqrt{\frac{1}{25}} = \frac{\sqrt{1}}{\sqrt{25}} = \frac{1}{5}$

c) $\sqrt{\frac{9}{25}} = \frac{\sqrt{9}}{\sqrt{25}} = \frac{3}{5}$

d) $\sqrt{\frac{16}{49}} = \frac{\sqrt{16}}{\sqrt{49}} = \frac{4}{7}$

e) $\sqrt{\frac{64}{25}} = \frac{\sqrt{64}}{\sqrt{25}} = \frac{8}{5}$

f) $\sqrt{\frac{81}{16}} = \frac{\sqrt{81}}{\sqrt{16}} = \frac{9}{4}$

g) $\sqrt{\frac{9}{36}} = \frac{\sqrt{9}}{\sqrt{36}} = \frac{3}{6} = \frac{1}{2}$

h) $\sqrt{\frac{49}{144}} = \frac{\sqrt{49}}{\sqrt{144}} = \frac{7}{12}$