DATA

B.13 Resolução:

a) $a^{2n+1} \cdot a^{1-n} \cdot a^{3-n} \longrightarrow$

$\rightarrow a^{2n+1+1-n+3-n} \rightarrow a^{2n+5-2n}$

$\rightarrow a^5$ //

ou

$a^{2n} \cdot a^1 \cdot \frac{a^1}{a^n} \cdot \frac{a^3}{a^n} \rightarrow a^{2n} \cdot \frac{a^5}{a^{2n}}$

a^5 //

b) $\frac{a^{2n+3}}{a^{2(n-1)}} \cdot a^{n-1} \rightarrow \frac{a^{2n+3}\, a^{n-1}}{a^{2n-2}}$

$\rightarrow \frac{a^{3n+2}}{a^{2n-2}} \rightarrow a^{3n+2-(2n-2)} \longrightarrow$

$\rightarrow a^{n+4}$ ///

c) $\frac{a^{2(n+1)} \cdot a^{3-n}}{a^{1-n}} \rightarrow \frac{a^{2n+2} \cdot a^{3-n}}{a^{1-n}}$

$\frac{a^{n+5}}{a^{1-n}} \rightarrow a^{n+5-(1-n)} \rightarrow a^{n+5-1+n}$

a^{2n+4} //

d) $\frac{a^{n+4} - a^3 \cdot a^n}{a^4 \cdot a^n} \longrightarrow$

$\rightarrow \frac{a^n \cdot a^4 - a^3 \cdot a^n}{a^4 \cdot a^n} \longrightarrow$

$\frac{a^n(a^4 - a^3)}{a^4 \cdot a^n} \rightarrow \frac{a^4 - a^3}{a^4} \longrightarrow$

$\frac{a^3(a-1)}{a^4} \rightarrow \frac{a^3(a-1)}{a^3 \cdot a^1}$

$\frac{a-1}{a}$ //

B.17 Resolução:

a) $(x+2)^2 \rightarrow \sqrt{(x+2)^2}$

$\rightarrow |x+2| = \begin{cases} x+2 & \text{se } x > -2 \\ 0 & \text{se } x = -2 \\ -x-2 & \text{se } x < -2 \end{cases}$

b) $(2x-3)^2 \rightarrow \sqrt{(2x-3)^2} \longrightarrow$

$|2x-3| = \begin{cases} 2x-3 & \text{se } x > 3/2 \\ 0 & \text{se } x = 3/2 \\ -2x+3 & \text{se } x < 3/2 \end{cases}$