Exercise 1 *Select the correct statement below.*

Multiple Choice:

(a) $\dfrac{\frac{a+\sqrt{x^3}}{\sqrt{x}}}{\frac{\sqrt{a+x^3}}{x}} = \dfrac{\sqrt{x}}{x} = \dfrac{1}{\sqrt{x}}$

(b) $\dfrac{\frac{a+\sqrt{x^3}}{\sqrt{x}}}{\frac{\sqrt{a+x^3}}{x}} = \dfrac{x\left(a+\sqrt{x^3}\right)}{\sqrt{x}\sqrt{a+x^3}} = \dfrac{x}{\sqrt{x}} = \sqrt{x}$

(c) $\dfrac{\frac{a+\sqrt{x^3}}{\sqrt{x}}}{\frac{\sqrt{a+x^3}}{x}} = \dfrac{x\left(a+\sqrt{x^3}\right)\sqrt{a+x^3}}{\sqrt{x}} = \sqrt{x}\left(a+\sqrt{x^3}\right)\sqrt{a+x^3}$

(d) $\dfrac{\frac{a+\sqrt{x^3}}{\sqrt{x}}}{\frac{\sqrt{a+x^3}}{x}} = \dfrac{\left(a+\sqrt{x^3}\right)\sqrt{a+x^3}}{x\sqrt{x}}$

(e) $\dfrac{\frac{a+\sqrt{x^3}}{\sqrt{x}}}{\frac{\sqrt{a+x^3}}{x}} = \dfrac{x\left(a+\sqrt{x^3}\right)}{\sqrt{x}\sqrt{a+x^3}} = \dfrac{ax+\sqrt{x^5}}{\sqrt{ax+x^4}}$ ✓

(f) $\dfrac{\frac{a+\sqrt{x^3}}{\sqrt{x}}}{\frac{\sqrt{a+x^3}}{x}} = \dfrac{x\left(a+\sqrt{x^3}\right)}{\sqrt{x}\sqrt{a+x^3}} = \dfrac{ax+\sqrt{x^4}}{\sqrt{ax+x^4}}$

(g) $\dfrac{\frac{a+\sqrt{x^3}}{\sqrt{x}}}{\frac{\sqrt{a+x^3}}{x}} = \dfrac{x\left(a+\sqrt{x^3}\right)}{\sqrt{x}\sqrt{a+x^3}} = \dfrac{ax+\sqrt{x^5}}{x\left(a+x^3\right)}$