

15. Express each of the following below as composites of two or more of the following:

$$a(x) = x + 1 \quad g(x) = x^3 \quad b(x) = x - 2 \quad h(x) = \frac{1}{x}$$

$$e(x) = 3x \quad k(x) = \sqrt{x} \quad f(x) = x^2 \quad m(x) = \sin x$$

(a) $3x + 1$ (h) $x + 2$ (o) $3\sin(x)$ (v) $\frac{1}{\sin^3 x} - 1$

(b) $3x + 3$ (i) $x - 1$ (p) $\sin(x^2)$ (w) $\frac{1}{3}x$

(c) $3x^2$ (j) $x^2 - 1$ (q) $\frac{1}{\sqrt{x}}$ (x) $3\sin^2(3x)$

(d) $9x^2$ (k) $3x + 2$ (r) $\frac{1}{\sqrt{x} - 2}$ (y) $x^2 + 2x + 1$

(e) $(x^3 - 2)^2$ (l) $\sqrt{x^3 + 1}$ (s) $\frac{1}{\sqrt{x} - 2}$ (z) $x^2 - 2x + 1$

(f) $9x + 3$ (m) $\sqrt{x + 1}$ (t) $x^{\frac{3}{2}}$ (aa) $\frac{1}{\sin^2 x}$

(g) $\frac{1}{\sqrt{x^2 + 1}}$ (n) $\sqrt{x} + 1$ (u) $\sin^2(3x)$ (bb) $\frac{1}{\sin \sqrt{x}} - 2$