

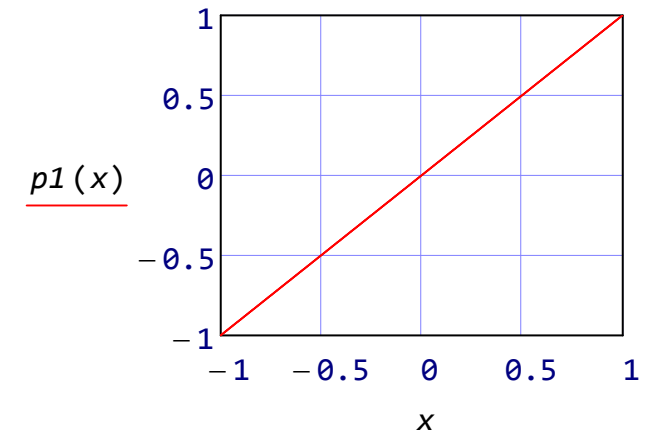
$$p1(x) := x$$

$$p1(x) \text{ solve, } x \rightarrow 0$$

$$v1 := p1(x) \text{ coeffs} \rightarrow \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

$$x1 := \text{polyroots}(v1)$$

$$x1 = 0$$



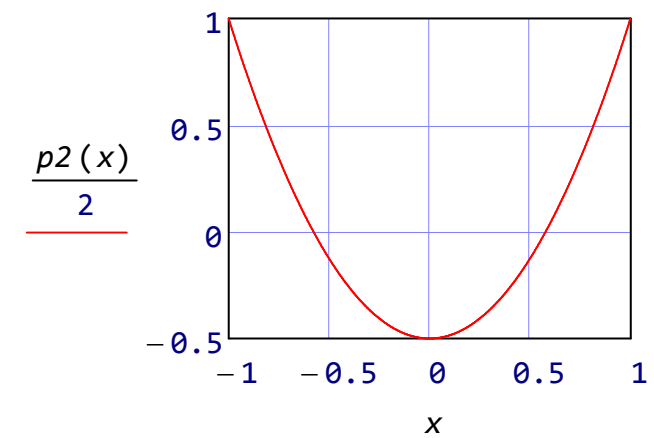
$$p2(x) := 3 \cdot x^2 - 1$$

$$p2(x) \text{ solve, } x \rightarrow \begin{pmatrix} \frac{\sqrt{3}}{3} \\ \frac{\sqrt{3}}{3} \end{pmatrix}$$

$$v2 := p2(x) \text{ coeffs} \rightarrow \begin{pmatrix} -1 \\ 0 \\ 3 \end{pmatrix}$$

$$x2 := \text{polyroots}(v2)$$

$$x2^T = (-0.57735 \quad 0.57735)$$



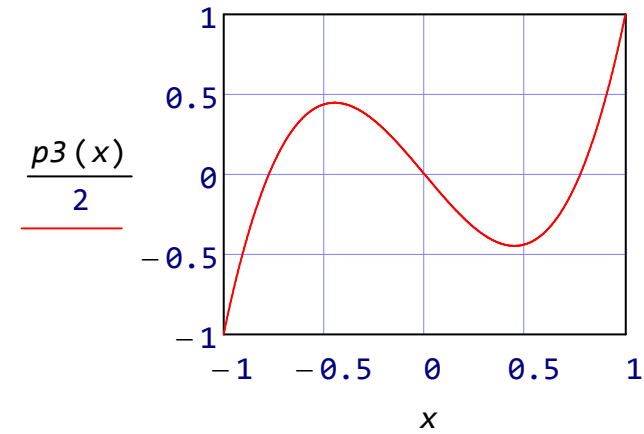
$$p3(x) := 5 \cdot x^3 - 3 \cdot x$$

$$p3(x) \text{ solve, } x \rightarrow \begin{pmatrix} 0 \\ \frac{\sqrt{15}}{5} \\ 5 \\ \frac{\sqrt{15}}{5} \\ 5 \end{pmatrix}$$

$$v3 := p3(x) \text{ coeffs} \rightarrow \begin{pmatrix} 0 \\ -3 \\ 0 \\ 5 \end{pmatrix}$$

$$x3 := \text{polyroots}(v3)$$

$$x3^T = (-0.774597 \quad 0 \quad 0.774597)$$



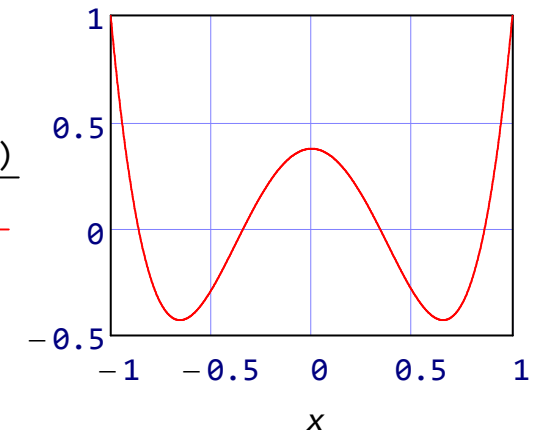
$$p4(x) := 35 \cdot x^4 - 30 \cdot x^2 + 3$$

$$p4(x) \text{ solve, } x \rightarrow \begin{pmatrix} \sqrt{\frac{3}{7} - \frac{2 \cdot \sqrt{30}}{35}} \\ \sqrt{\frac{2 \cdot \sqrt{30}}{35} + \frac{3}{7}} \\ -\sqrt{\frac{3}{7} - \frac{2 \cdot \sqrt{30}}{35}} \\ -\sqrt{\frac{2 \cdot \sqrt{30}}{35} + \frac{3}{7}} \end{pmatrix}$$

$$v4 := p4(x) \text{ coeffs} \rightarrow \begin{pmatrix} 3 \\ 0 \\ -30 \\ 0 \\ 35 \end{pmatrix}$$

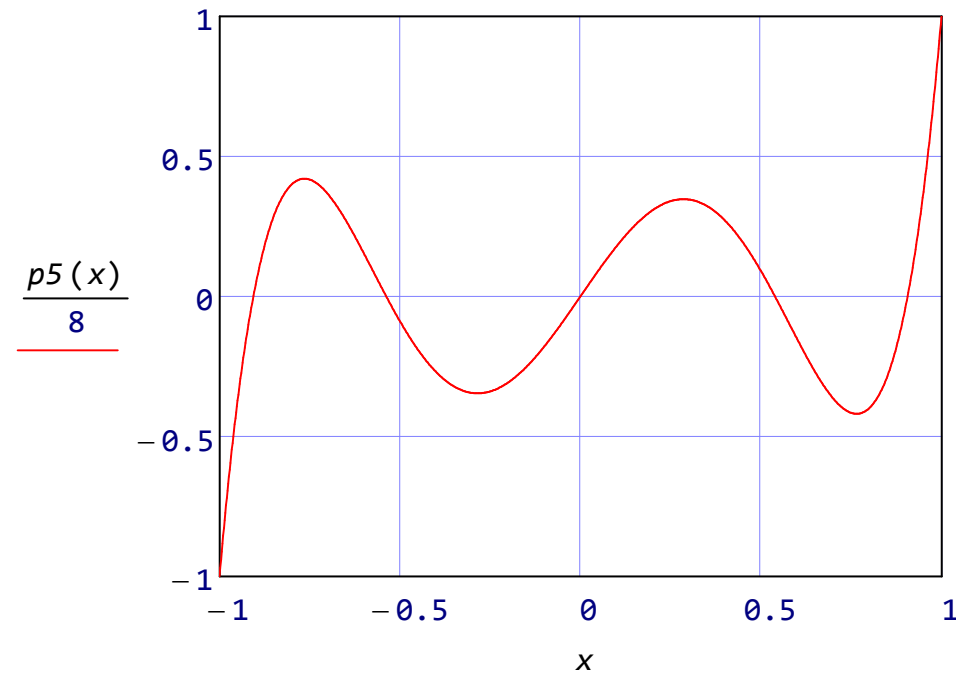
$$x4 := \text{polyroots}(v4)$$

$$x4^T = (-0.861136 \quad -0.339981 \quad 0.339981 \quad 0.861136)$$



$$p5(x) := 63 \cdot x^5 - 70 \cdot x^3 + 15 \cdot x$$

$$p5(x) \text{ solve, } x \rightarrow \begin{pmatrix} 0 \\ \sqrt{\frac{5}{9} - \frac{2 \cdot \sqrt{70}}{63}} \\ \sqrt{\frac{2 \cdot \sqrt{70}}{63} + \frac{5}{9}} \\ -\sqrt{\frac{5}{9} - \frac{2}{63} \cdot \sqrt{70}} \\ -\sqrt{\frac{2}{63} \cdot \sqrt{70} + \frac{5}{9}} \end{pmatrix}$$



$$v5 := p5(x) \text{ coeffs} \rightarrow \begin{pmatrix} 0 \\ 15 \\ 0 \\ -70 \\ 0 \\ 63 \end{pmatrix}$$

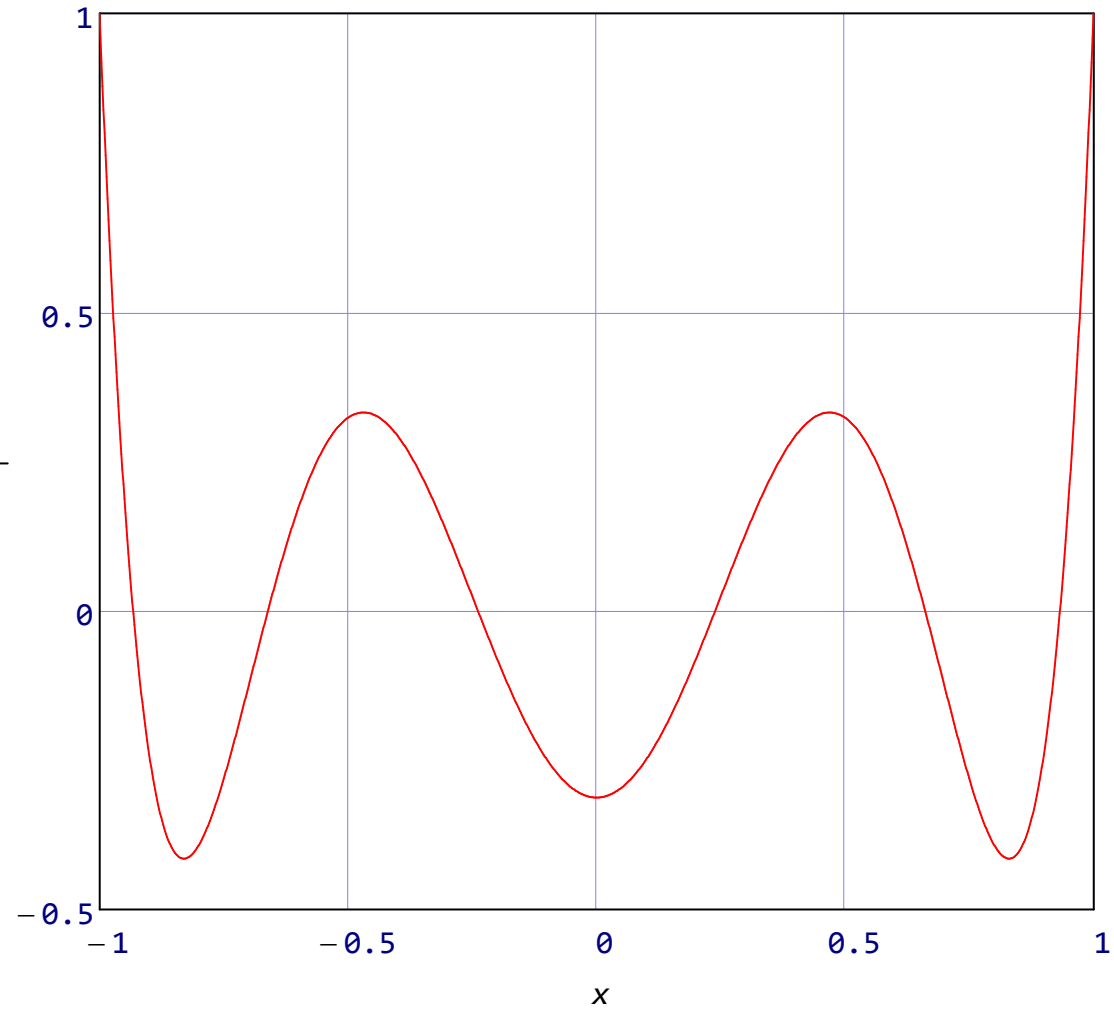
$$x5 := \text{polyroots}(v5)$$

$$x5^T = (-0.90618 \quad -0.538469 \quad 0 \quad 0.538469 \quad 0.90618)$$

$$p6(x) := 231 \cdot x^6 - 315 \cdot x^4 + 105 \cdot x^2 - 5$$

$$v6 := p6(x) \text{ coeffs} \rightarrow \begin{pmatrix} -5 \\ 0 \\ 105 \\ 0 \\ -315 \\ 0 \\ 231 \end{pmatrix}$$

$$\frac{p6(x)}{16}$$



$$x6 := \text{polyroots}(v6)$$

$$x6^T = (-0.93247 \quad -0.661209 \quad -0.238619 \quad 0.238619 \quad 0.661209 \quad 0.93247)$$

$$\frac{\sqrt{495 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} + 1089 \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}}}}{33 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{6}}}$$

$$\frac{\sqrt{1980 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} - 2178 \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} - 120 - 120 \cdot \sqrt{3} \cdot i + 2178}}{66 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{6}}}$$

$$\frac{\sqrt{1980 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} - 2178 \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} - 120 - 2178 \cdot \sqrt{3} \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}}}}{66 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{6}}}$$

$p6(x)$  solve,  $x \rightarrow$

$$\frac{\sqrt{1980 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} - 2178 \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} - 120 - 120 \cdot \sqrt{3} \cdot i + 2178}}{66 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{6}}}$$

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$$\sqrt{1980 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} - 2178 \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} - 120 - 2178 \cdot \sqrt{3} \cdot \left( -\frac{3}{234} \right)}$$

$$66 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{6}}$$

$$\sqrt{495 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}} + 1089 \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{3}}}$$

$$33 \cdot \left( \frac{40}{27951} + \frac{40}{7623} \cdot \sqrt{6} \cdot i \right)^{\frac{1}{6}}$$

$$\frac{\sqrt{6 \cdot i}^{\frac{1}{3}} + 60}{}$$

$$\frac{3 \cdot \sqrt{3} \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6 \cdot i} \right)^{\frac{1}{3}} \cdot i}{}$$

$$\frac{\frac{32400}{3775203} + \frac{3200}{213070473} \cdot \sqrt{6 \cdot i}^{\frac{1}{3}} \cdot i + 120 \cdot \sqrt{3} \cdot i}{}$$

$$\frac{8 \cdot \sqrt{3} \cdot \left( -\frac{382400}{2343775203} + \frac{3200}{213070473} \cdot \sqrt{6 \cdot i} \right)^{\frac{1}{3}} \cdot i}{}$$

$$\frac{82400}{3775203} + \frac{3200}{213070473} \cdot \sqrt{6 \cdot i} \Big)^{\frac{1}{3}} \cdot i + 120 \cdot \sqrt{3} \cdot i$$

$$\frac{1}{\sqrt{6 \cdot i} \Big)^{\frac{1}{3}} + 60}$$