POLYNOMIAL EQUATIONS – ANSWER KEY

(01). $x = -\frac{7}{2} + \frac{\sqrt{13}}{2}$ *or* $x = -\frac{7}{2} - \frac{\sqrt{13}}{2}$ *or* $x = -\frac{5}{2} + \frac{\sqrt{53}}{2}$ *or* $x = -\frac{5}{2} - \frac{\sqrt{53}}{2}$

(02). $x = -1 + \sqrt{3}$ *or* $x = -1 - \sqrt{3}$ *or* $x = -\frac{3}{2} + \frac{\sqrt{37}}{2}$ *or* $x = -\frac{3}{2} - \frac{\sqrt{37}}{2}$

(03). $x = -1 + \sqrt{17}$ *or* $x = -1 - \sqrt{17}$ *or* $x = -\frac{3}{2} + \frac{\sqrt{5}}{2}$ *or* $x = -\frac{3}{2} - \frac{\sqrt{5}}{2}$

(04). $x = 4 + \sqrt{14}$ *or* $x = 4 - \sqrt{14}$ *or* $x = 1 + \sqrt{2}$ *or* $x = 1 - \sqrt{2}$

(05). $x = \frac{9}{2} + \frac{\sqrt{37}}{2}$ *or* $x = \frac{9}{2} - \frac{\sqrt{37}}{2}$ *or* $x = -\frac{5}{2} + \frac{\sqrt{21}}{2}$ *or* $x = -\frac{5}{2} - \frac{\sqrt{21}}{2}$

(06). $x = \frac{5}{2} + \frac{\sqrt{61}}{2}$ *or* $x = \frac{5}{2} - \frac{\sqrt{61}}{2}$ *or* $x = \frac{7}{2} + \frac{\sqrt{41}}{2}$ *or* $x = \frac{7}{2} - \frac{\sqrt{41}}{2}$

(07). $x = \frac{3}{2} + \frac{\sqrt{37}}{2}$ *or* $x = \frac{3}{2} - \frac{\sqrt{37}}{2}$ *or* $x = -\frac{9}{2} + \frac{\sqrt{97}}{2}$ *or* $x = -\frac{9}{2} - \frac{\sqrt{97}}{2}$

(08). $x = \frac{1}{2} + \frac{\sqrt{11}}{2}$ *or* $x = -\frac{1}{2} - \frac{\sqrt{11}}{2}$ *or* $x = 1 + \sqrt{11}$ *or* $x = 1 - \sqrt{11}$

(09). $x = 2 + \sqrt{17}$ *or* $x = 2 - \sqrt{17}$ *or* $x = \frac{9}{2} + \frac{\sqrt{57}}{2}$ *or* $x = \frac{9}{2} - \frac{\sqrt{57}}{2}$

(10). $x = \frac{1}{\sqrt{2}}$ *or* $x = -\frac{1}{\sqrt{2}}$ *or* $x = -3 + \sqrt{15}$ *or* $x = -3 - \sqrt{15}$

(11). $x = 1 + \sqrt{5}$ *or* $x = 1 - \sqrt{5}$ *or* $x = \sqrt{\frac{3}{5}}$ *or* $x = -\sqrt{\frac{3}{5}}$

(12). $x = \frac{1}{\sqrt{11}}$ *or* $x = -\frac{1}{\sqrt{11}}$ *or* $x = 2 + \sqrt{17}$ *or* $x = 2 - \sqrt{17}$

(13). $x = -\frac{3}{14} + \frac{\sqrt{37}}{14}$ *or* $x = -\frac{3}{14} - \frac{\sqrt{37}}{14}$ *or* $x = -\frac{1}{4} + \frac{\sqrt{33}}{12}$ *or* $x = -\frac{1}{4} - \frac{\sqrt{33}}{12}$

(14). $x = \frac{5}{26} + \frac{\sqrt{77}}{26}$ *or* $x = \frac{5}{26} - \frac{\sqrt{77}}{26}$ *or* $x = \frac{2}{11} + \frac{\sqrt{37}}{11}$ *or* $x = \frac{2}{11} - \frac{\sqrt{37}}{11}$

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