Practice worksheet | Quadratics and Parabolas

Graphical/numerical solutions

Name: _____ Date: _____

6 questions | 16 marks

1. Use the table to locate the positive root of $x^2 - 3 = 0$ between two listed values. [2 marks]

x	1.6	1.7	1.8
x^2-3	-0.44	-0.11	0.24

2. Estimate both roots of $x^2 - 5 = 0$ to two decimal places. [2 marks]

3. Find the intersections of $y = x^2 - 2$ and $y = x$. [3 marks]

4. Use the supplied values to round the positive root of $x^2 + x - 1 = 0$ to two decimal places. [3 marks]

x	0.618	0.619
x^2+x-1	-0.000076	0.002161

5. Solve $x^2 = 2x + 1$ exactly, then give decimal answers to two places. [3 marks]

6. Why does a sign-change search miss the root of $f(x) = (x - 2)^2$ if it checks only x=1 and x=3? [3 marks]