

Calculators are **NOT** to be used.

1. Using a trial & improvement method, solve: (answers are whole numbers)

(a) $x^2 + x = 42$

(b) $x^2 - x = 20$

(c) $x^2 - 2x = 8$

(d) $x^3 + x = 10$

(e) $x^3 - x = 24$

(f) $x^3 + 2x = 33$

(g) $x^5 + x = 34$

(h) $x^4 - x = 78$

(i) $x^4 - 3x = 244$

(j) $2x^3 - 3x = 10$

(k) $3x^4 - 5x = 1850$

(l) $5x^3 - x^2 = 126$

2. Using a trial & improvement method, solve: (answers to 2 decimal places)

*note square roots have both positive and negative results

(a) $a^3 + 1 = 4$

(b) $m^3 - 1 = 10$

(c) $p^3 - 2 = 4$

(d) $2x^3 - 1 = 10$

(e) $2x^3 + 2 = 19$

(f) $2x^3 - 2 = 22$

(g) $x + \sqrt{x} = 7$

(h) $x - \sqrt{x} = 4$

(i) $x + \sqrt{x} = 5$

3. Find the square root of each number. (answers to 2 decimal place)

(a) 10

(b) 15

(c) 18

(d) 23

(e) 26

(f) 47

(g) 63

(h) 145

(i) 1213

4. Find the cube root of each number. (answers to 2 decimal place)

(a) 17

(b) 22

(c) 13

(d) 29

(e) 59

(f) 131

(g) 173

(h) 295

(i) 1001

1.

(a) 6

(b) 5

(c) 4

(d) 2

(e) 3

(f) 3

(g) 2

(h) 3

(i) 4

(j) 2

(k) 5

(l) 3

2.

(a) 1.44

(b) 2.22

(c) 1.82

(d) 1.77

(e) 2.04

(f) 2.29

(g) 4.81, 10.19

(h) 6.57, 2.44

(i) 3.21, 7.79

3.

(a) 3.16

(b) 3.87

(c) 4.24

(d) 4.80

(e) 5.10

(f) 6.86

(g) 7.94

(h) 12.04

(i) 34.83

4.

(a) 2.57

(b) 2.80

(c) 2.35

(d) 3.07

(e) 3.89

(f) 5.08

(g) 5.57

(h) 6.66

(i) 10.00