## TRIAL AND IMPROVEMENT - PRACTICE QUESTIONS

1. A solution to the equation  $2x^2 + 7x - 3 = 0$  lies between 0 and 1.



Use trial and improvement to find this solution to 1 decimal place. The table has been started for you.

x	Value	Too big or too small?
0	-3	Too small
1	6	Too big
0.5	\	too big
0.4	0.12	toobig
0.3	-0.72	too small
0.35	-0.305	too small

2. A solution to the equation  $3x^2 - 5x + 1 = 0$  lies between 1 and 2.

Use trial and improvement to find this solution to 1 decimal place.



x	Value	Too big or too small?
1.5	0.25	too big
1.4	-0.12	toosmall
1.45	0.0575	too big

3. A solution to the equation  $3x^3 - 5x^2 = 23$  lies between 2 and 3.

Use trial and improvement to find this solution to 1 decimal place.



x	Value	Too big or too small?
2.5	15,625	too small
2.6	18.928	too small
27	22.599	too small
2.8	26 656	too big
2.75	24,578125	toobig

4. A solution to the equation  $6x^3 + 5x = 50$  lies between 1 and 2.

Use trial and improvement to find this solution to 1 decimal place.

1.5	27.75	too small
1.6	32.576	too small
1.7	37.978	too small
1.8	43.492	too small
1.9	50.654	too big
1.85	47.23975	too small
		(19)

5. A solution to the equation  $x^3 + 6x^2 - 5x = 75$  lies between 3 and 4. Use trial and improvement to find this solution to 1 decimal place.



6. A solution to the equation  $x^3 - 4x^2 + 11x = 90$  lies between 5 and 6. Use trial and improvement to find this solution to 1 decimal place.

5.5	105.875	too big
5.4	100.224	too big
5.3	94.817	toobig
5.2	89.648	too small
5.25	92.203125	too big
		(5.2)

7. A solution to the equation  $3x^3 + 10x^2 - 12x = 50$  lies between 2 and 3. Use trial and improvement to find this solution to 1 decimal place.



8. A solution to the equation  $5x^2 - 11x = 15$  lies between 3.1 and 3.2.

Use trial and improvement to find this solution to 2 decimal places.

3,15	14.4625	llams oct
3.16	15.168	too big
3.155	15.0615125	too big



9. A solution to the equation  $3x^3 + 4x^2 + 5x = 100$  lies between 2.6 and 2.7. Use trial and improvement to find this solution to 2 decimal places.

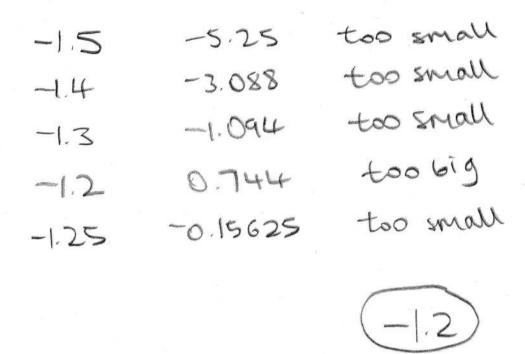
2.65	97.168875	too small
2.66	98.065688	too small
2.67	P8081P. 8P	too small
2.68	99.876096	too small
2.69	100789727	too big
2.685	100.3322074	too big



10.

A solution to the equation  $2x^3 + 9x + 15 = 0$  lies between -2 and -1.

Use trial and improvement to find this solution to 1 decimal place.



11. A solution to the equation  $2x^3 + 5x + 100 = 0$  lies between -4 and -3.

Use trial and improvement to find this solution to 1 decimal place.

12.

A solution to the equation  $2x^3 - 11x^2 - 22x + 16 = 0$  lies between 6 and 7.

Use trial and improvement to find this solution to 1 decimal place.

13. A solution to the equation  $3x^3 - 2x^2 + 9x - 9 = 0$  lies between 0.9 and 1.0.

Use trial and improvement to find this solution to 2 decimal places.

