

Approximating Solutions

Home Link 6-1

NAME _____

DATE _____

TIME _____

For each equation, try to get as close as possible to the exact solution. Use the suggested test numbers to get started. Round numbers to the nearest thousandth.



Sample answers given.

① Equation: $r^2 + r = 15$

r	r^2	$r^2 + r$	Compare ($r^2 + r$) to 15
3	9	12	< 15
4	16	20	> 15
3.5	12.25	15.75	> 15
3.4	11.56	14.96	< 15
3.45	11.903	15.353	> 15
3.42	11.696	15.116	> 15
3.41	11.628	15.038	> 15

My closest number: 3.41

② Equation: $x^2 - 2x = 23$

x	x^2	$2x$	$x^2 - 2x$	Compare ($x^2 - 2x$) to 23
6	36	12	24	> 23
5	25	10	15	< 23
5.5	30.25	11	19.25	< 23
5.7	32.49	11.4	21.09	< 23
5.8	33.64	11.6	22.04	< 23
5.9	34.81	11.8	23.01	> 23
5.89	34.692	11.78	22.912	< 23

My closest number: 5.9

Practice

Rewrite each expression in exponential notation.

③ $9 * 9 * 9$ 9^3

④ $7 * 7 * 7 * 7 * 7$ 7^5

⑤ $6.2 * 6.2$ 6.2^2