

5-1 Partner Problems

Work the problems in your column. For each problem number, your answer should match your neighbor's answer.

	Partner 1		Partner 2
1	Simplify: $\sqrt[3]{x^{12}}$ $x^{12/3}$ x^4	1	Simplify: $\sqrt[5]{x^{20}}$ $x^{20/5}$ x^4
2	Simplify: $\sqrt[6]{64x^{18}y^{24}}$ $(64)^{1/6} x^{18/6} y^{24/6}$ $2x^3y^4$	2	Simplify: $\sqrt[4]{16x^{12}y^{16}}$ $16^{1/4} x^{12/4} y^{16/4}$ $2x^3y^4$
3	Solve. Find all real solutions $x^3 = 64$ $x = 4$	3	Solve. Find all real solutions $x^6 = 4096$ $x^5 = 1024$ $x = 4$
4	Solve. Find all real solutions $3x^6 - 2 = 2185$ $3x^6 = 2187$ $x^6 = 729$ $x = \pm 3$	4	Solve. Find all real solutions $2x^4 + 1 = 163$ $2x^4 = 162$ $x^4 = 81$ $x = \pm 3$
5	Find all real 5 th roots of 7776 6	5	Find all real 7 th roots of 279, 936 6
6	Find all real 6 th roots of 262,144 ± 8	6	Find all real 4 th roots of 4096 ± 8
7	Evaluate: $\sqrt[4]{144^2}$ $144^{2/4} = 144^{1/2} = 12$	7	Evaluate: $\sqrt[6]{1728^2}$ 12
8	Approximate using a calculator: $\sqrt[6]{361} \approx 2.668$	8	Approximate using a calculator $\sqrt[3]{19} \approx 2.668$