ALGEBRA 2 · HOMEWORK · ADVANCED

Use nth Roots to Solve Problems

SCORE / 25

01 Part A · Practice

When a quantity is raised to a power in a formula, isolate the power and take the matching root to solve the problem.

1 ●○○ Solve $882 = 800(1 + r)^2$ for r ($r > 0$). Give r as a percent.

2 ●○○ Solve $4x^4 = 82$ for $x > 0$. Round to the nearest hundredth.

3 ●○○ For a planet, $T^2 = a^3$ (T in years, a in AU). Find a when $T = 512$.

4 ●○○ Solve $V = 2s^3$ for s when $V = 250$. Give the exact answer.

5 ●○○ Solve $1440 = 1000(1 + r)^2$ for r ($r > 0$). Give r as a percent.

6 ●○○ Solve $5x^5 = 64$ for $x > 0$. Round to the nearest hundredth.

7 ●○○ Solve $V = 2s^3$ for s when $V = 1458$. Give the exact answer.

8 ●○○ Solve $V = 3s^3$ for s when $V = 81$. Give the exact answer.

9 ●○○ Solve $1125 = 500(1 + r)^2$ for r ($r > 0$). Give r as a percent.

10 ●○○ For a planet, $T^2 = a^3$ (T in years, a in AU). Find a when $T = 216$.

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Preview - the full worksheet and its answer key are at primeworksheet.com