Course: SAT ACT Prep

Subject: Mathematical Reasoning

Topic: Arithmetic

Subtopic: Operations with Radicals

Document: Quick Drill A Resource

Lesson Number: 4

Reference Number: 1004-7

https://youtube.com/c/MrMattTheTutor

1) What is the value of the expression $\left(\frac{X^2+2}{Y^2-3}\right)$ when $X = 2\sqrt{2}$ and $Y = 3\sqrt{2}$?

2) What is the value of the expression $\left(\frac{2X+Y}{2Y-X}\right)^2$ when $X = 3\sqrt{2}$ and $Y = 2\sqrt{2}$?

3) If $\sqrt[3]{27} + \sqrt[3]{Y} = \sqrt[3]{125}$, what is the value of Y?

4) If $\sqrt[3]{64} + \sqrt[2]{Y} = \sqrt[3]{216}$, what is the value of Y?

5) If $\dfrac{\sqrt[3]{M}}{3}$ is a positive integer, what is the smallest possible positive integer value of

M?

6) If $\dfrac{\sqrt[4]{N}}{4}$ is a positive even integer, what is the smallest possible positive integer value of N?