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 $Y=2\sqrt{2}$?

			\bigcirc	00000000
\mathcal{D}	6	6		6
	9	9	9	9

3) If $\sqrt[3]{27} + \sqrt[2]{Y} = \sqrt[3]{125}$, what is the value of Y?

	1	10	1
0	0	0	
0	0	0	
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
(5)	(5)	(5)	(5)
6	6	6	6
1	1	1	1
8		8	8
9	9	9	9

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

	1	1	1
0	0	0	0
0	0	0	0
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
(5)	(5)	(5)	(5)
6	6	6	6
1	0	1	1
8	8	8	8
9	9	9	9

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

0	0	0	0
0	0	0	0
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
(5)	(5)	(5)	(5)
6	6	6	6
1	0	1	1
8	8	8	(8)
9	9	9	9

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

1			0	0	2	3	1	(5)	6	0	8	9
ri i	0	0	0	1	2	3	4	(5)	6	1	(8)	9
. 71	0	0	0	0	2	3	4	(5)	6	1	8	9
1	0	0		1	2	3	4	(5)	6	1	8	9