

Name: Key

Date: _____

SQUARE ROOT ARITHMETIC
N-GEN MATH® ALGEBRA I DO NOW

FLUENCY

1. Which of the following is equivalent to the product $\sqrt{2} \cdot \sqrt{6}$?

(1) $3\sqrt{2}$

(2) $2\sqrt{6}$

(3) $2\sqrt{3}$

(4) $6\sqrt{2}$

$\sqrt{12}$
 $\sqrt{4 \cdot 3}$
 $2\sqrt{3}$

3

2. Which product below gives a rational number as a result?

(1) $\sqrt{6} \cdot \sqrt{9} = \sqrt{54} = 7.348469278...$

(2) $\sqrt{5} \cdot \sqrt{20} = \sqrt{100} = 10$

(3) $\sqrt{3} \cdot \sqrt{10} = \sqrt{30} = 5.477225575...$

(4) $\sqrt{8} \cdot \sqrt{4} = \sqrt{32} = 5.656854249...$

2

3. Which of the following is the value of the expression $\sqrt{17} \cdot \sqrt{17} - \sqrt{3} \cdot \sqrt{3}$?

(1) $\sqrt{8}$

(2) 16

(3) $\sqrt{11}$

(4) 14

P
E
M/D
MS

$\sqrt{289} - \sqrt{9}$
 $17 - 3$
 14

4

4. Which expression below is equivalent to $\frac{2}{\sqrt{6}}$?

(1) $\frac{\sqrt{6}}{3}$

(2) $\frac{\sqrt{3}}{2}$

(3) $\frac{\sqrt{6}}{2}$

(4) $\frac{\sqrt{3}}{6}$

$\frac{2}{\sqrt{6}} \cdot \frac{\sqrt{6}}{\sqrt{6}} = \frac{2\sqrt{6}}{\sqrt{36}}$
 $\frac{2\sqrt{6}}{6} = \frac{\sqrt{6}}{3}$

1

5. Which of the following is the result of the difference $5\sqrt{8} - \sqrt{32}$?

(1) $3\sqrt{3}$

(2) $6\sqrt{2}$

(3) $7\sqrt{3}$

(4) $5\sqrt{2}$

$(5\sqrt{2} - \sqrt{16})\sqrt{2}$
 $5 \cdot 2\sqrt{2} - 4\sqrt{2}$
 $10\sqrt{2} - 4\sqrt{2} = 6\sqrt{2}$

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