Assumption College Ubonratchathani
English for Math 2

Name:..... Class:..... No. .....

Dividing and Simplifying Surds

การแบ่งและทำให้ง่ายขึ้น surds

Formula: $\frac{\sqrt{a}}{\sqrt{b}} = \sqrt{\frac{a}{b}}$



Example: Divide and simplify $\frac{\sqrt{10}}{\sqrt{5}}$

Solution 1: $\frac{\sqrt{10}}{\sqrt{5}} = \sqrt{\frac{10}{5}} = \sqrt{2}$ ← answer

Solution 2: $\frac{\sqrt{10}}{\sqrt{5}} = \frac{\sqrt{5} \times \sqrt{2}}{\sqrt{5}} = \sqrt{2}$ ← answer

Divide and simplify.

1. $\frac{\sqrt{12}}{\sqrt{3}}$

   a. $\sqrt{6}$ b. 2 c. 4

2. $\frac{\sqrt{21}}{\sqrt{7}}$

   a. $\sqrt{3}$ b. $\sqrt{7}$ c. 3

3. $\frac{\sqrt{2}}{\sqrt{6}}$

   a. $\frac{1}{\sqrt{2}}$ b. $\sqrt{3}$ c. $\frac{1}{\sqrt{3}}$

4. $\frac{\sqrt{75}}{\sqrt{3}}$

   a. 5 b. $\sqrt{5}$ c. $5\sqrt{3}$

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5. $\frac{\sqrt{8}}{2}$

a. 4 b. $\sqrt{2}$ c. $2\sqrt{2}$

Example: Divide and simplify $\frac{4\sqrt{6}}{2\sqrt{3}}$

Solution 1: $\frac{4\sqrt{6}}{2\sqrt{3}} = \frac{4}{2}\sqrt{\frac{6}{3}} = 2\sqrt{2}$ ← answer

Solution 2: $\frac{4\sqrt{6}}{2\sqrt{3}} = \frac{4}{2}\frac{\sqrt{3}\,x\,\sqrt{2}}{\sqrt{3}} = 2\sqrt{2}$ ← answer

6. $\frac{14\sqrt{24}}{2\sqrt{12}}$

a. $\frac{\sqrt{2}}{7}$ b. $7\sqrt{6}$ c. $7\sqrt{2}$

7. $\frac{18\sqrt{27}}{6\sqrt{9}}$

a. $\frac{\sqrt{3}}{3}$ b. $3\sqrt{3}$ c. 9

8. $\frac{15\sqrt{24}}{3\sqrt{6}}$

a. 10 b. 20 c. $5\sqrt{2}$

9. $\frac{21\sqrt{3}}{7\sqrt{15}}$

a. $3\sqrt{5}$ b. $\frac{3}{\sqrt{5}}$ c. $\frac{\sqrt{5}}{3}$

10. $\frac{4\sqrt{5}}{8\sqrt{10}}$

a. $\frac{2}{\sqrt{2}}$ b. $2\sqrt{2}$ c. $\frac{1}{2\sqrt{2}}$



"Fall seven times and stand up eight." – Japanese Proverb

("ล้มเจ็ดครั้งและลุกขึ้นแปดครั้ง" - สุภาษิตญี่ปุ่น)

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