



Name:.....

Class:.....

No.

Multiplying and Simplifying Surds

การคูณและทำให้ Surds ง่ายขึ้น

$$\text{Formula: } \sqrt{a} \times \sqrt{b} = \sqrt{a \times b}$$

Example 1: Multiply and simplify $\sqrt{2} \times \sqrt{3}$

$$\text{Solution: } \sqrt{2} \times \sqrt{3} = \sqrt{2 \times 3} = \sqrt{6}$$

Example 2: Multiply and simplify $\sqrt{2} \times \sqrt{8}$

$$\text{Solution: } \sqrt{2} \times \sqrt{8} = \sqrt{2 \times 8} = \sqrt{16} = 4$$

Example 3: Multiply and simplify $3\sqrt{5} \times 2\sqrt{3}$

$$\text{Solution: } 3\sqrt{5} \times 2\sqrt{3} = 3 \times 2 \sqrt{5\sqrt{3}} = 6\sqrt{5 \times 3} = 6\sqrt{15}$$



Multiply and simplify.

1. $\sqrt{2} \times \sqrt{5}$

a. $2\sqrt{5}$

b. $5\sqrt{2}$

c. $\sqrt{10}$

2. $\sqrt{5} \times \sqrt{5}$

a. 5

b. 25

c. $5\sqrt{5}$

3. $\sqrt{27} \times \sqrt{3}$

a. 9

b. $9\sqrt{3}$

c. $6\sqrt{3}$

4. $\sqrt{5} \times \sqrt{20}$

a. 20

b. 10

c. $4\sqrt{10}$

5. $\sqrt{2} \times \sqrt{40}$

a. $16\sqrt{5}$

b. $4\sqrt{5}$

c. $8\sqrt{5}$

6. $\sqrt{3} \times \sqrt{12}$

a. $9\sqrt{7}$

b. $7\sqrt{3}$

c. 6

7. $3\sqrt{3} \times \sqrt{5}$

a. $5\sqrt{15}$

b. $15\sqrt{3}$

c. $3\sqrt{15}$

8. $3\sqrt{2} \times 2\sqrt{2}$

a. 12

b. 24

c. $6\sqrt{2}$

9. $5\sqrt{2} \times 4\sqrt{5}$

a. $10\sqrt{10}$

b. $20\sqrt{10}$

c. 200

10. $2\sqrt{15} \times 3\sqrt{5}$

a. $30\sqrt{3}$

b. $18\sqrt{5}$

c. $12\sqrt{3}$



“However difficult life may seem, there is always something you can do and succeed at.”

“ชีวิตจะดูลำบากเพียงใด ย่อมมีเสมอ

สิ่งที่คุณสามารถทำได้และประสบความสำเร็จ”

- Stephen Hawking