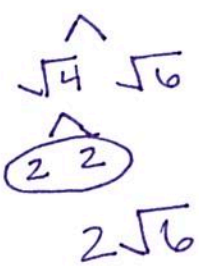
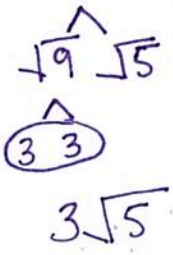
Simplifying Square-Root Expressions

Simplify each expression

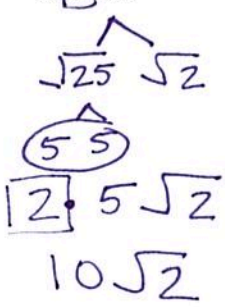
1. $\sqrt{24}$



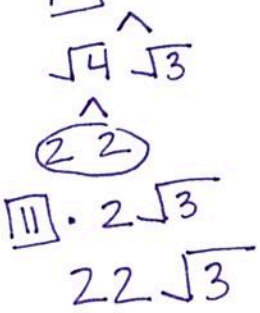
2. $\sqrt{45}$



3. $2\sqrt{50}$

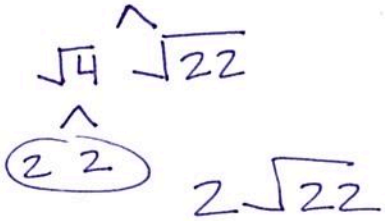


4. $11\sqrt{12}$



5. $\sqrt{26}$

6. $\sqrt{88}$



Are the terms like radicals? Simplify.

7. $2\sqrt{7} + 4\sqrt{7}$

$6\sqrt{7}$

8. $4\sqrt{13} + 13\sqrt{13}$

$17\sqrt{13}$

9. $12\sqrt{2} - 4\sqrt{11}$

no like terms

Practice with your table:

10. $\sqrt{48}$

$\sqrt{16}\ \sqrt{3}$

$4\ 4$ $\quad 4\sqrt{3}$

11. $\sqrt{84}$

$\sqrt{4}\ \sqrt{21}$

$2\ 2$ $\quad 2\sqrt{21}$

12. $\sqrt{90}$

$\sqrt{9}\ \sqrt{10}$

$3\ 3$

$3\sqrt{10}$

13. $2\sqrt{200}$

$\sqrt{100}\ \sqrt{2}$

$10\ 10$

$2 \cdot 10\sqrt{2}$

$20\sqrt{2}$

14. $5\sqrt{169}$

$13\ 13$

$5 \cdot 13 = 65$

15. $\sqrt{224}$

$\sqrt{16}\ \sqrt{14}$

$4\ 4$ $\quad 4\sqrt{14}$

Simplify

16. $9\sqrt{y} - \sqrt{y}$

$8\sqrt{y}$

17. $-8\sqrt{3d} + 6\sqrt{2d} + 10\sqrt{3d}$

$2\sqrt{3d} + 6\sqrt{2d}$