14.2 – Multiplying Radicals

1. $\sqrt{5} \cdot \sqrt{6} =$ $\sqrt{30}$

$\sqrt{30}$

$3 \mid 30$
$2 \mid 10$
5

No pairs!

2. $\sqrt{3} \cdot \sqrt{8} =$ $2\sqrt{6}$

$\sqrt{24}$

$2 \mid 24$
$2 \mid 12$
$2 \mid 6$
3

3. $5\sqrt{7} \cdot 6\sqrt{2} =$ $30\sqrt{14}$

$30\sqrt{14}$

$2 \mid 14$
7

No pairs!

4. $-2\sqrt{6} \cdot 5\sqrt{8} =$ $-40\sqrt{3}$

$-10\sqrt{48}$

$-10 \cdot 2 \cdot 2\sqrt{3}$

$2 \mid 48$
$2 \mid 24$
$2 \mid 12$
$2 \mid 6$
3

5. $(-6\sqrt{2})(-8\sqrt{2}) =$ 96

$48\sqrt{4}$
$48 \cdot 2$

6. $(\sqrt{5})^2 =$ 5

7. $(3\sqrt{2})^2 =$ 18

$(3)^2 \cdot (\sqrt{2})^2$
$9 \cdot 2$