Multiplying RadicalsMan

...take two.

1. $(3\sqrt{5} + 6\sqrt{7})(4\sqrt{2} - 5\sqrt{7})$

$12\sqrt{10} - 15\sqrt{35} + 24\sqrt{14} - 30\sqrt{49}$

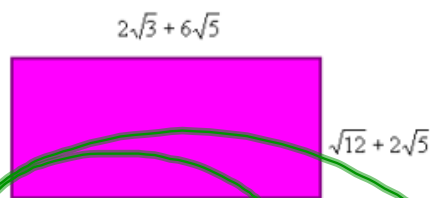$12\sqrt{10} - 15\sqrt{35} + 24\sqrt{14} - \dfrac{30(7)}{210}$

Find the area!

2.

$$2\sqrt{3} + 6\sqrt{5}$$

$$\sqrt{12} + 2\sqrt{5}$$

Find the area!

2.

$2\sqrt{3} + 6\sqrt{5}$

$\sqrt{12} + 2\sqrt{5}$

$A = l \times w$

$(2\sqrt{3} + 6\sqrt{5})(\sqrt{12} + 2\sqrt{5})$

$2\sqrt{36} + 4\sqrt{15} + 6\sqrt{60} + 12\sqrt{25}$

$2(6) + 4\sqrt{15} + 6\sqrt[2]{4}\cdot 15 + 12(5)$

$12 + 4\sqrt{15} + 12\sqrt{15} + 60$

$72 + 16\sqrt{15}$

4

Find the area!

$$6\sqrt{12} + 3\sqrt{20}$$

$$3\sqrt{3} + \sqrt{8}$$

Find the area!

$$6\sqrt{12} + 3\sqrt{20}$$

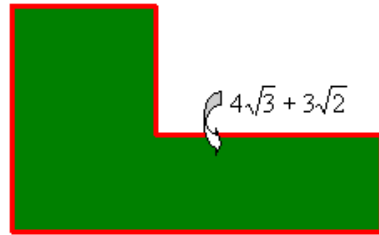$$3\sqrt{3} + \sqrt{8}$$

$$\left(6\sqrt{12} + 3\sqrt{20}\right)\left(3\sqrt{3} + \sqrt{8}\right)$$

$$18\sqrt{36} + 6\sqrt{96} + 9\sqrt{60} + 3\sqrt{160}$$

$$18(6) + 6\sqrt{16}\cdot 6 + 9\sqrt{4}\cdot 15 + 3\sqrt{16}\cdot 10$$

$$= 108 + 24\sqrt{6} + 18\sqrt{15} + 12\sqrt{10}$$

3.

$5\sqrt{12} - \sqrt{50}$

$4\sqrt{3} + 3\sqrt{2}$

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

$2\sqrt{75} + 3\sqrt{8}$