MATH 60/GRACEY
WORKSHEET/9.5

Name_____

Add or subtract. Assume all variables represent positive real numbers.

1) $\sqrt{27} - \sqrt{147}$

2) $4\sqrt{5} - 6\sqrt{125}$

3) $3\sqrt{50} - 5\sqrt{200} - 4\sqrt{8}$

4) $8\sqrt[3]{2} - 4\sqrt[3]{128}$

5) $3\sqrt[4]{6} + 8\sqrt[3]{6}$

6) $\sqrt{\frac{3}{16}} + \sqrt{\frac{147}{9}}$

7) $\sqrt{3a} - 6\sqrt{108a} + 4\sqrt{48a}$

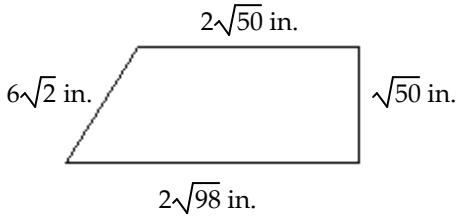
8) $\sqrt{3x^2} - 2\sqrt{48x^2} + 6\sqrt{48x^2}$

9) $4\sqrt[3]{a} - \sqrt[3]{-27a}$

10) $6\sqrt[3]{x^3y^{13}} - 2xy\sqrt[3]{8y^{10}}$

Solve.

11) Find the perimeter of the trapezoid. Simplify.



Multiply, and then simplify if possible. Assume all variables represent positive real numbers.

12) $\sqrt{2}(\sqrt{50} + \sqrt{10})$

13) $\sqrt{5}(\sqrt{3} + \sqrt{7})$

14) $(\sqrt{14} - \sqrt{98})(\sqrt{7} + \sqrt{2})$

15) $(8\sqrt{11} + 6)(8\sqrt{11} + 9)$

16) $(6\sqrt{5} - 7)^2$

17) $(4 + \sqrt[3]{3})(4 - \sqrt[3]{3})$

18) $(\sqrt{5} + \sqrt{7})^2$

19) $\sqrt{3}(\sqrt{3} + x\sqrt{15})$

20) $(11\sqrt{x} + 3)(\sqrt{11x} - 3)$

21) $(\sqrt[3]{x} + 2)(\sqrt[3]{x} + 5\sqrt{x} + 2)$

22) $\left(\sqrt{2x - 1} + 5\right)^2$

23) $\left(\sqrt{x - 1} + 6\right)^2$

24) $(\sqrt{b} - s)(\sqrt{b} + s)$

Solve.

25) Find the area of the trapezoid. Simplify if possible.