

LAST NAME	FIRST NAME	DATE
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1 (2 points). Find the hypotenuse of the right triangle with legs $a = 6$ and $b = 10$. State the answer in a simplified form, do not round.

2 (2 points). Find the remaining side of the right triangle with a leg $a = 5$ and the hypotenuse $c = 7$. State the answer in a simplified form, do not round.

3 (8 points). Simplify each expression:

(a) $\sqrt{98}$

(c) $\sqrt{20x^2}$

(b) $\sqrt{180}$

(d) $\sqrt{54a^5b^6}$

4. Simplify each expression:

(a) $\sqrt{6} \cdot \sqrt{12}$

(b) $\frac{\sqrt{140}}{2\sqrt{5}}$

(c) $5\sqrt{2} + 3\sqrt{8}$

(d) $(4\sqrt{5})^2$

(e) $(\sqrt{12x^7})^3$

(f) $\frac{\sqrt{72a^3b}}{\sqrt{2ab^9}}$