

Math 095
Exam #4
Fall 2010

Name:

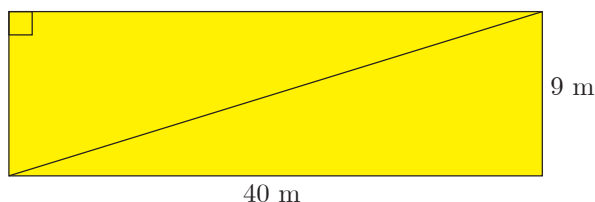
1. [5 pts. each] Find each root.

(a) $-\sqrt{196}$

(b) $\sqrt{-64}$

(c) $\sqrt[3]{-64}$

2. [10 pts.] The length of a rectangle is 40 meters and the width is 9 meters. Find the length of the rectangle's diagonal.



3. [10 pts. each] Simplify each radical expression.

(a) $\sqrt{56}$

(b) $\sqrt{900y^8}$

(c) $\sqrt{25t^{11}}$

(d) $\sqrt{\frac{y^4}{100}}$

4. [10 pts. each] Simplify, and add or subtract wherever possible.

(a) $11\sqrt{14} - \sqrt{14}$

(b) $\sqrt{98} - \sqrt{72} + \sqrt{50}$

5. [10 pts. each] Rationalize each denominator.

(a) $\frac{4\sqrt{6}}{\sqrt{5}}$

(b) $\sqrt{\frac{1}{3}}$

6. [10 pts. each] Simplify each expression.

(a) $2\sqrt{5}(\sqrt{2} + 3\sqrt{5})$

(b) $(3 - \sqrt{5})(3 + \sqrt{5})$

7. [10 pts.] Write the quotient $\frac{12 - \sqrt{40}}{4}$ in lowest terms

8. [10 pts.] For the equation $y = 2x + 9$, complete the ordered pairs $(2, \quad)$ and $(\quad, -3)$.

9. [10 pts.] Find the intercepts for the graph of $2x - 3y = 24$.

10. [10 pts. each] Graph each linear equation.

(a) $-3x + y = -6$

(b) $x = 4$

11. [10 pts.] Find the slope of the line through the points $(-2, 4)$ and $(-3, 8)$.

12. [10 pts.] Find the slope of the line given by $2y = -x + 4$.

13. [10 pts.] Write the equation of the line with slope -5 and y -intercept $(0, 6)$.

14. [10 pts.] Graph the line that has slope $m = -\frac{3}{7}$ and contains the point $(1, 2)$.