

Name _____

Math 7 Honors

Date _____

Radicals w/s #6

Directions: Select the choice that best answers each question. You may use a calculator.

Perfect Squares	1. Simplify the expression $\sqrt{288}$. A $144\sqrt{2}$ B $12\sqrt{2}$ C $12\sqrt{3}$ D $36\sqrt{8}$	2. Simplify the expression $3\sqrt{100} - 8\sqrt{9}$. A $-5\sqrt{91}$ B 54 C 7 D 6
	3. The expression $4\sqrt{500}$ is equivalent to: A $40\sqrt{50}$ B $20\sqrt{10}$ C $200\sqrt{10}$ D $40\sqrt{5}$	4. Rewrite the expression in simplest radical form. $-2\sqrt{150}$ A $-10\sqrt{6}$ B $-15\sqrt{10}$ C $-50\sqrt{6}$ D -150
	5. Simplify: $\sqrt{\frac{8}{9}} + \sqrt{\frac{32}{81}}$	6. Simplify: $\sqrt{\frac{27}{100}} - \sqrt{\frac{75}{25}}$

7. What is $\sqrt{54}$ subtracted from $11\sqrt{6}$?
Write your answer in simplest radical form.

Answer _____

8. What is the perimeter of the rectangle shown below? Express the answer in simplest radical form.



Answer _____

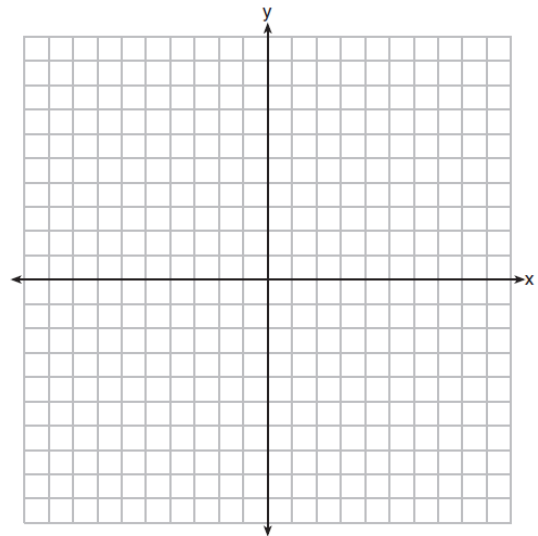
9. If $A = -2\sqrt{3}$, $B = 2\sqrt{48}$, and $C = -3\sqrt{75}$, then evaluate each expression.

Part A Simplify $A + B$.

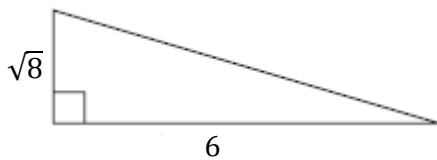
Part A Simplify $B - C$.

Answer _____

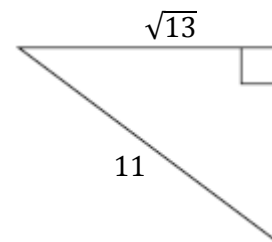
10. Paul plotted the points $(2, 6)$ and $(-7, 3)$. Determine the distance between these points. Write your answer in simplest radical form.



11.



12.



Directions: Write each expression in simplest radical form. Match the equivalent values in each column.

13. $\sqrt{200} - \sqrt{32}$

A $-6\sqrt{3}$

14. $\sqrt{7} + \sqrt{28}$

B $3\sqrt{7}$

15. $\sqrt{12} + \sqrt{3} + \sqrt{20}$

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

16. $\sqrt{18} - 3\sqrt{50}$

D $6\sqrt{2}$

17. $-5\sqrt{12} + \sqrt{48}$

E $-12\sqrt{2}$

18. Perfect squares such as $\sqrt{16}$, $\sqrt{144}$, and $\sqrt{81}$ are all examples of _____ numbers.

The value _____ is considered an irrational number because it is not a perfect square.