

Homework # 9

AAA

Name: _____

Name

Color by Classifying

0.25	1.76	$\frac{1}{5}$	$\sqrt{-36}$	$\frac{5}{8}$	2.75		
	0.125	$\frac{8}{0}$	$\sqrt{17}$	$\sqrt{-4}$	$\frac{9}{11}$	0.45	$1\frac{1}{87}$
$0.\bar{3}$	$\sqrt{-83}$	.23924...	$\sqrt{6}$	$\sqrt{56}$	$\frac{15}{0}$	$0.\bar{6}$	$4.\bar{13}$
$\frac{3}{4}$	$\sqrt{84}$	$8\frac{5}{12}$	.78321...	$7.\bar{81}$	$\sqrt{21}$	$\sqrt{-49}$	$3\frac{3}{0}$
$0.\bar{9}$	.3295...	.9857...	$\sqrt{41}$	$\sqrt{37}$	.4837...	$\sqrt{50}$	$\sqrt{67}$
$\sqrt{9}$	$\sqrt{145}$	$9.\bar{5}$	$\sqrt{5}$	127	$\sqrt{3}$	$\frac{5}{0}$	$\sqrt{-25}$
$\frac{12}{3}$	.93823...	$\sqrt{15}$	$\sqrt{101}$	$\sqrt{16}$	.3825...	$\sqrt{-100}$	$1\frac{1}{0}$

BLACK - Number that is Not Real
 YELLOW - Real, Irrational Number

BLUE - Real, Rational Number
 GREEN - Real, Rational Number, Integer

8th Grade Unit 2

<p>Green Real, Rational Numbers, Integers</p>	<p>Any positive or negative whole number that can be written as a fraction.</p>	<p>Blue Real, Rational Numbers</p>	<p>Any number that can be written as a fraction on a number line. It must terminate or end.</p>	<p>Yellow Real, Irrational Numbers</p>	<p>Numbers that cannot be written as fractions because they do not terminate or repeat. Square roots that are not perfect squares.</p>	<p>Black Numbers that Are Not Real</p>	<p>Negative square roots and any whole number over zero.</p>
<p>Examples:</p>	<p>Examples:</p>	<p>Examples:</p>	<p>Examples:</p>				

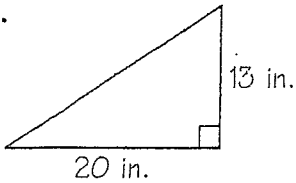
Where Does the Scent of a Lady's Perfume Go?

Do each exercise and find your answer at the bottom of the page (most answers are rounded). Cross out the letter above each correct answer.

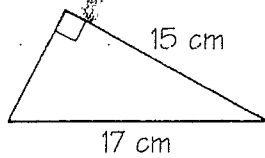


Find the missing side length, if possible.

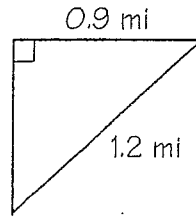
1.



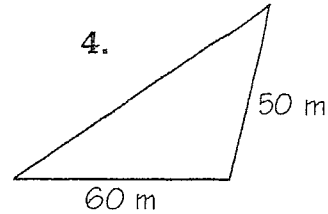
2.



3.



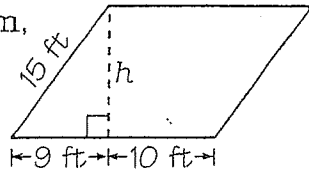
4.



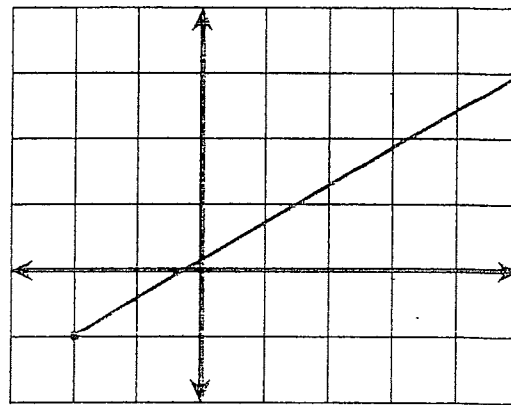
Solve.

5. For this parallelogram,

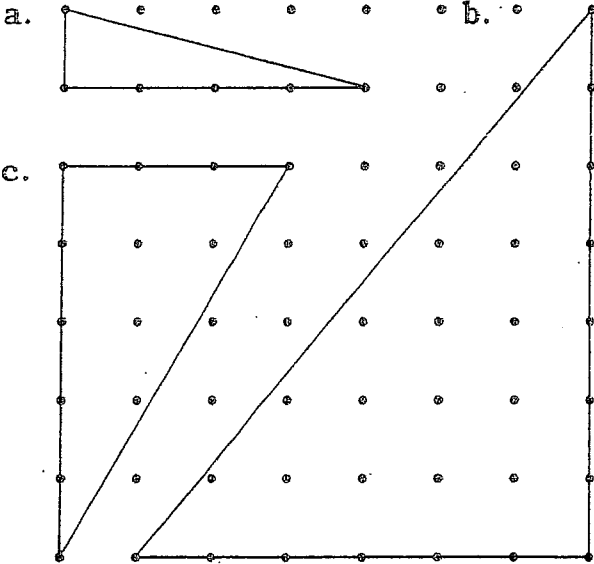
- Find the height.
- Find the area.



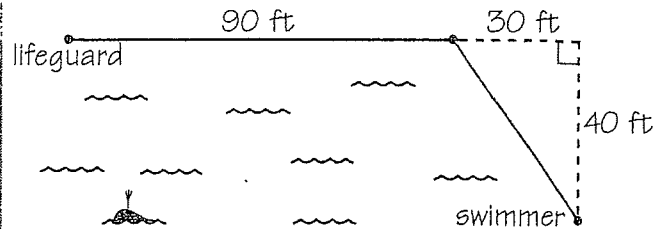
8. In a rectangular coordinate system, what is the distance from $(-2, -1)$ to $(5, 3)$?



6. These triangles are drawn on 1-cm dot paper. Find the perimeter of each.



9. A lifeguard spots a drowning swimmer 40 ft from the beach. She runs 90 ft along the beach at a speed of 15 ft/s, then jumps in the water and swims straight to the swimmer at a speed of 5 ft/s. How long does it take her to reach the swimmer?



7. A 50-ft cable is stretched from the top of an antenna to an anchor point on the ground 15 ft from the base of the antenna. How tall is the antenna?

G	O	N	E	T	O	O	S	N	C	E	N	T	G	O	L	E	S	T	E	D
47.7 ft	12 ft	8.4	13.8 cm	16 s	11.4 cm	10.5 ft	228 ft ²	18 s	0.8 mi	20.5 cm	46.9 ft	8.1	23.9 in.	0.6 mi	22.2 cm	not possible	275 ft ²	8 cm	24.2 in.	9.1 cm

24. **Multiple Choice** Which set of irrational numbers is in order from least to greatest?

- A. $\sqrt{2}, \sqrt{5}, \sqrt{11}, \pi$
- B. $\sqrt{2}, \sqrt{5}, \pi, \sqrt{11}$
- C. $\sqrt{2}, \pi, \sqrt{5}, \sqrt{11}$
- D. $\pi, \sqrt{2}, \sqrt{5}, \sqrt{11}$

Find the two consecutive whole numbers the square root is between. Explain.

25. $\sqrt{39}$

26. $\sqrt{600}$

Tell whether the statement is *true* or *false*. Explain.

27. $0.06 = \sqrt{0.36}$

28. $1.1 = \sqrt{1.21}$

29. $20 = \sqrt{40}$

Tell whether a triangle with the given side lengths is a right triangle. Explain how you know.

30. 5 cm, 7 cm, $\sqrt{74}$ cm

31. $\sqrt{2}$ ft, $\sqrt{3}$ ft, 3 ft

Extensions

Find the area of the shaded region.

