

Welcome Back MYP Math 9!

	Assignment Effort Grade (Circle One)	Comments (What was interesting or challenging?)
Monday Date: 10/23 Topic: Create your own problem!	0 1 2	
Tuesday Date: 10/24 Topic: Finished create your own problem	0 1 2	
Wednesday Date: 10/25 Topic: Parallel/Perpendicular Lines	0 1 2	
Thursday Date: 10/26 Romeo & Juliet Topic: _____	0 1 2	
Friday Date: 10/27 Review Topic: _____	0 1 2	.Please reflect and turn in!

Class Plan:

1. Warm-up

2. Review Unit 2 Topics

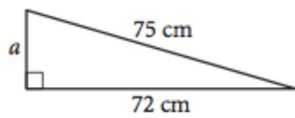
- Pythagorean Theorem
- Classify Triangles
- Distance Formula
- Midpoint
- Applications

3. Joke break!

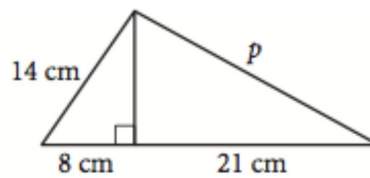
Unit Test: Tuesday 10/31

Warm-up: Choose to do #1 OR #2

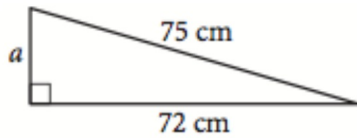
1. $a =$ _____



2. $p =$ _____

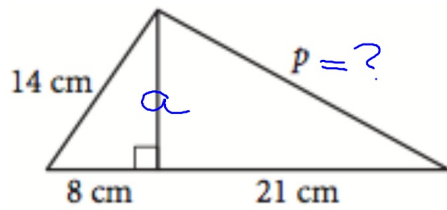


1. $a =$ _____



$$\begin{aligned} a^2 + 72^2 &= 75^2 \\ a^2 + 5184 &= 5625 \\ -5184 \quad -5184 & \\ \hline 7a^2 &= 7441 \quad m \\ a &= \textcircled{21} \text{ and } -21 \end{aligned}$$

$$2. p = \sqrt{573} \text{ cm}$$



$$a^2 + 8^2 = 14^2$$

$$a^2 + 64 = 196$$

$$a^2 = 132$$

$$a = \sqrt{132}$$

$$21^2 + (\sqrt{132})^2 = p^2$$

$$441 + 132 = p^2$$

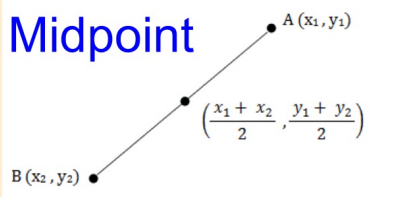
$$573 = p^2$$

$$p = \sqrt{573}$$

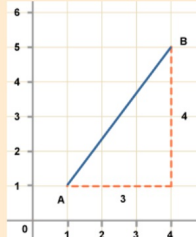
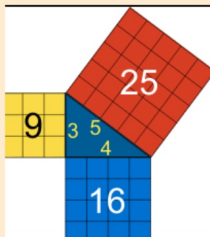
$$p \approx 23.9 \text{ cm}$$

Unit 2: Coordinate Geometry

Do: Review Worksheet



Pythagorean Theorem



Done?
Extension
Problems

Joke break!




jokeoverflow.com

**ALWAYS GIVE
100%
AT WORK**

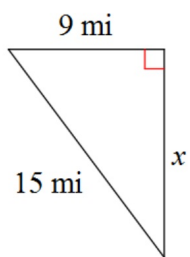
12%	MONDAY
23%	TUESDAY
40%	WEDNESDAY
20%	THURSDAY
5%	FRIDAY

**DEAR MATH,
PLEASE GROW UP AND
SOLVE YOUR
OWN
PROBLEMS,
IM TIRED OF
SOLVING THEM
FOR YOU.**



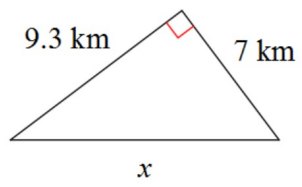
Find the missing side of each triangle.

1)



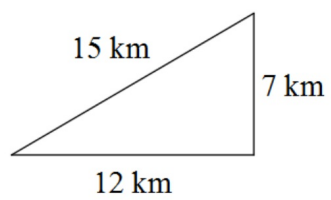
Find the missing side of each triangle.

2)



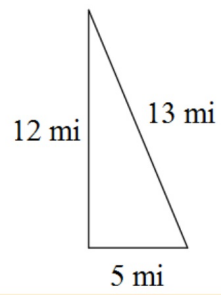
State if each triangle is a right triangle.

3)



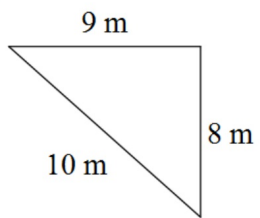
State if each triangle is a right triangle.

4)



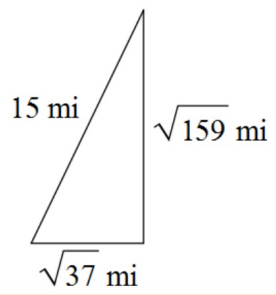
State if each triangle is acute, obtuse, or right.

5)



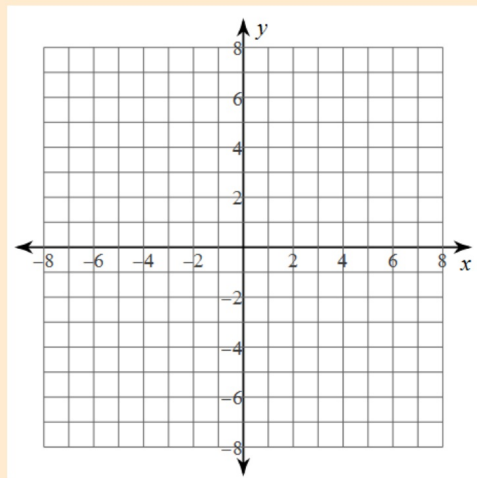
State if each triangle is acute, obtuse, or right.

6)



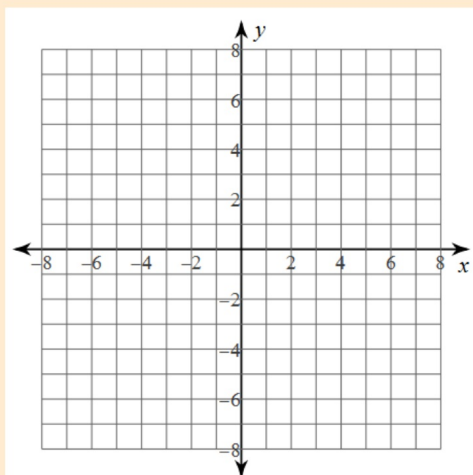
Find the midpoint of the line segment with the given endpoints.

7) $(-1, 8)$, $(3, -6)$



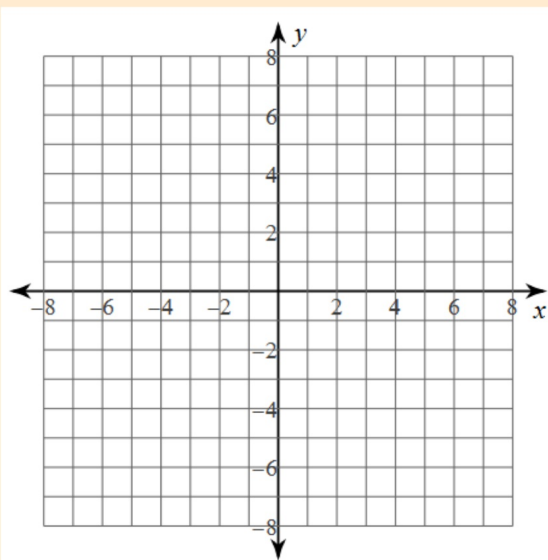
Find the midpoint of the line segment with the given endpoints.

8) $(-2, -5)$, $(-7, 6)$



Find the other endpoint of the line segment with the given endpoint and midpoint.

11) Endpoint: $(-7, 0)$, midpoint: $(-2, 3)$



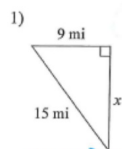
- 13) Juliet is looking out her window at Romeo. Romeo uses a 15 foot ladder to lean against the tower. The ladder is 5 feet from the base of the tower. How high up is Juliet?

Draw a diagram, then solve.



SOLUTIONS

Find the missing side of each triangle. Round your answers to the nearest tenth if necessary.

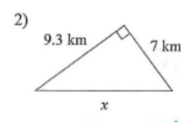


$$9^2 + x^2 = 15^2$$

$$81 + x^2 = 225$$

$$x^2 = 144$$

$$x = 12 \text{ mi}$$



$$(9.3)^2 + (7)^2 = x^2$$

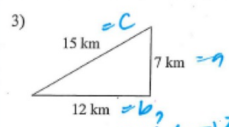
$$86.49 + 49 = x^2$$

$$135.49 = x^2$$

$$\sqrt{135.49} = x$$

$$x \approx 11.64 \text{ km}$$

State if each triangle is a right triangle.



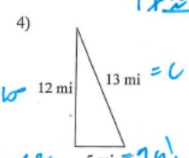
$$(7)^2 + (12)^2 \stackrel{?}{=} (15)^2$$

$$49 + 144 \stackrel{?}{=} 225$$

$$193 < 225$$

no, not right triangle

obtuse triangle



$$(5)^2 + (12)^2 \stackrel{?}{=} 13^2$$

$$25 + 144 \stackrel{?}{=} 169$$

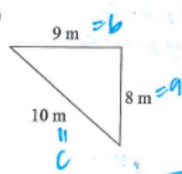
$$169 = 169 \checkmark$$

right triangle

SOLUTIONS

State if each triangle is acute, obtuse, or right.

5)



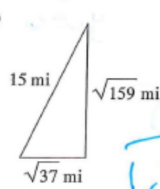
$$(8)^2 + (9)^2 = (10)^2$$

$$64 + 81 = 145$$

$$145 > 100$$

obtuse

6)



$$(\sqrt{159})^2 + (\sqrt{37})^2 = 15^2$$

$$159 + 37 = 196$$

$$196 < 225$$

obtuse w/c $c^2 < a^2 + b^2$

Answers to Show work in your notebook.

- 1) 12 mi
- 5) Acute

- 2) 11.6 km
- 6) Obtuse

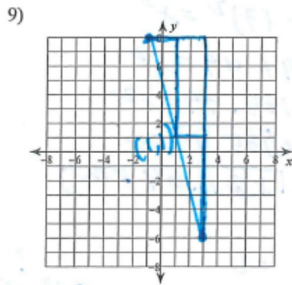
- 3) No
- 7) (1, 1)

- 4) Yes
- 8) $\left(-4, \frac{1}{2}\right)$

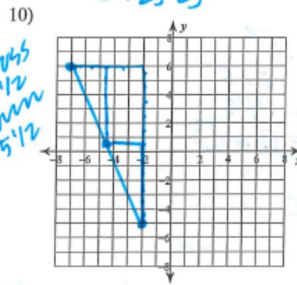
SOLUTIONS

Find the midpoint of the line segment with the given endpoints. (Show graphically and algebraically).

7) x_1, y_1, x_2, y_2
 $(-1, 8), (3, -6)$
 $\left(\frac{-1+3}{2}, \frac{8+(-6)}{2}\right)$
 $\left(\frac{2}{2}, \frac{2}{2}\right) = (1, 1)$



8) x_1, y_1, x_2, y_2
 $(-2, -5), (-7, 6)$
 $\left(\frac{-2+(-7)}{2}, \frac{-5+6}{2}\right)$
 $\left(\frac{-9}{2}, \frac{1}{2}\right)$
 $(-4\frac{1}{2}, \frac{1}{2})$



across
2 1/2
down
5 1/2

3) Kite 4) ISOSCELES
TRAPZOID

SOLUTIONS

Find the other endpoint of the line segment with the given endpoint and midpoint. (Show graphically and algebraically).

11) Endpoint: $(-7, 0)$, midpoint: $(-2, 3)$

$$\frac{-7+x_2}{2} = -2 \Rightarrow -7+x_2 = -4$$

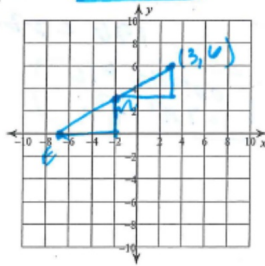
$$x_2 = 3$$

$$\frac{0+y_2}{2} = 3 \Rightarrow 0+y_2 = 6$$

$$y_2 = 6$$

Endpoint: $(3, 6)$

13)



12) Endpoint: $(10, 3)$, midpoint: $(7, -1)$

$$\frac{10+x_2}{2} = 7 \Rightarrow 10+x_2 = 14$$

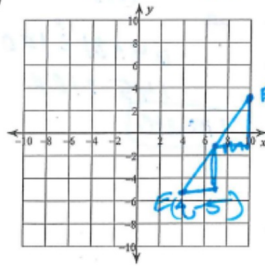
$$x_2 = 4$$

$$\frac{3+y_2}{2} = -1 \Rightarrow 3+y_2 = -2$$

$$y_2 = -5$$

Endpoint: $(4, -5)$

14)

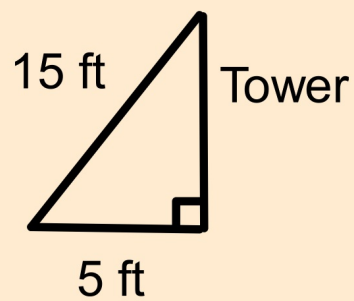


CLASSIFY KEY:
 1) ISOSCELES TRIANGLE
 2) SCALENE TRIANGLE

SOLUTIONS

- 13) Juliet is looking out her window at Romeo. Romeo uses a 15 foot ladder to lean against the tower. The ladder is 5 feet from the base of the tower. How high up is Juliet?

Draw a diagram, then solve.



$$t^2 + 5^2 = 15^2$$



Exercises...

Review Handout - Study!

Answers to Review --- Show all solving!

1) 12 mi

5) Acute

9)

13) approximately 14.1 feet

2) 11.6 km

6) Obtuse

10)

3) No

7) (1, 1)

11) (3, 6)

4) Yes

8) $\left(-4\frac{1}{2}, \frac{1}{2}\right)$

12)