

NAME \_\_\_\_\_

NTI DAY #7 Period \_\_\_\_\_

(weather-closed school day)

# PACKET SEVEN (Math)

## General Directions:

Due to weather, Harrison County Schools are closed. In an effort to utilize this day on the school calendar, your child is assigned and should work on this “packet” of school work today. It will count as a grade for this subject. The work attached is specific to the subject listed above. Please contact your child’s teacher of this subject at 234-7123 in the event you/your student have questions on this packet. Staff and teachers reported to HCMS today and are available should you have questions.

While this is DUE no later than the last school day before the 3<sup>rd</sup> nine-weeks ends, we **strongly encourage** students to turn it in to their teacher as soon as it’s complete (soon after the NTI day) to avoid it being lost, eaten by the family pet, burned to keep warm, etc ☺

Harrison County Schools

## Non-Traditional Instruction

### Snow Plan 2017-18

Due to the large number of weather related days of school closures, the Kentucky Department of Education has granted school districts across the state permission to implement "Non Traditional Instruction" (NTI) days. The Harrison County Board of Education approved all Harrison County Schools the opportunity to experiment with this option during the 2017-18 school year.

#### **WHAT IS NON-TRADITIONAL INSTRUCTION? (NTI)**

Non Traditional Instruction allows for learning at home when students miss regular instruction due to weather/extraordinary circumstances. Students will have the chance for skill review, remediation, and enrichment through technology or paper packets. Packets will be sent home by December 1. The work that is assigned on a NTI day will be that of review or enrichment. Examples of work will be informational reading, math fact fluency, college and career readiness, etc.

#### **WHEN WILL A NTI DAY BE CALLED?**

A NTI day will be used if it is determined that a large majority of the roads are safe to travel, but an extra day or two is needed for some of our 'hard to melt' roads. When a NTI day is called, students will work from home on their assigned lessons found in their NTI packet or online. Harrison County Schools may use up to 10 NTI days. However, this is unlikely as we feel the use of NTI days should be at the minimum. The number of days missed due to weather will help determine how many NTI days are enacted.

#### **HOW WILL I KNOW HARRISON COUNTY SCHOOLS ARE HAVING A NTI DAY?**

A *Community Safe* one call will be made to all parents and staff announcing a NTI day. Lexington television stations, WCYN radio and the Cynthiana Democrat will also be alerted. Harrison County Schools will place this information on its website, as well on Facebook and Twitter. You can always call your child's school or the Harrison County Board office to ask if the day missed is a regular snow day or a NTI day.

#### **WHAT IS THE ACCOUNTABILITY OF MY STUDENT ON A NTI DAY?**

Students will be required to complete all tasks assigned during a NTI day. All NTI work will be due by the end of the 9 week grading period in which the NTI day was called. If a NTI day is called within the last five (5) student days of a nine (9) week grading period, work will be due the last day of the next 9 weeks. \* Advanced Placement Courses/Dual Credit courses are exempted from this schedule, as their deadlines are determined by instructor on a course by course basis.

The completion of the NTI assignments counts for the student's attendance for that day. The completion of the NTI work means one less summer make up day for students will have to be enacted.

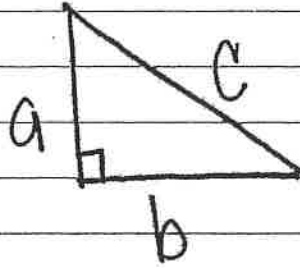
#### **WHEN WILL MY CHILD'S TEACHER BE AVAILABLE ON A NTI DAY?**

Staff will be available from 9:00 a.m. until 11:30 a.m. and from 12:30 p.m. until 3:00 p.m. Teachers will be available via e-mail or students can call their school and leave a message for their teacher to call them back. Other forms of communication may be used at the discretion of the teacher.

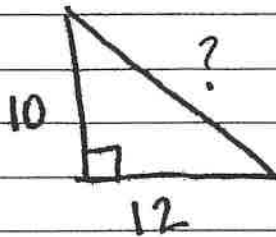
# \* Notes \*

## Pythagorean Theorem

$$a^2 + b^2 = c^2$$



Example:



$$10^2 + 12^2 = c^2$$

$$100 + 144 = c^2$$

$$244 = c^2$$

$$\sqrt{244} = \sqrt{c^2}$$

$$c = \sqrt{244} \text{ or } 15.62$$

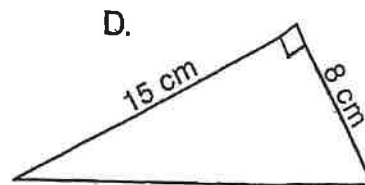
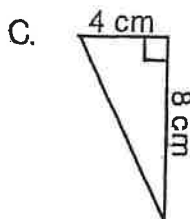
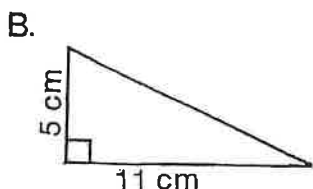
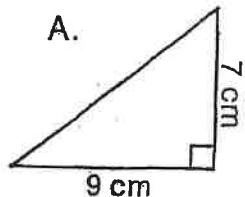
← How to show your work.

# \* Show work on back or separate paper. What Do Two Bullets Have When They Get Married?

Work each problem and find your answers at the bottom of the page. Shade out the letter above each correct answer. When you finish, the answer to the title question will remain.

Solving for "C" on all.

- ① Find the length of the hypotenuse of each right triangle:

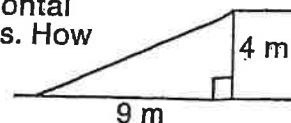


- ② A rectangle is 3 meters wide and 10 meters long. How long is the diagonal of the rectangle?

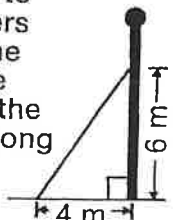
- ⑦ Each side of a checkerboard measures 40 cm. What is the length of its diagonal?

- ③ A rectangle is 13 centimeters wide and 18 centimeters long. How long is its diagonal?

- ⑧ An inclined ramp rises 4 meters over a horizontal distance of 9 meters. How long is the ramp?



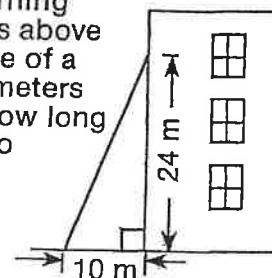
- ④ A guy wire is attached to an upright pole 6 meters above the ground. If the wire is anchored to the ground 4 meters from the base of the pole, how long is the wire?



- ⑨ A box is 120 cm long and 25 cm wide. What is the length of the longest ski pole that could be packed to lie flat in the box?

- ⑤ A television screen measures 30 cm wide and 22 cm high. What is the diagonal measure of the screen?

- ⑩ The window of a burning building is 24 meters above the ground. The base of a ladder is placed 10 meters from the building. How long must the ladder be to reach the window?

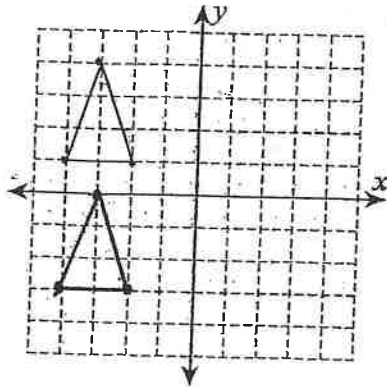


T	H	E	F	B	I	H	A	S	B	E	D	B	U	G	S
$\sqrt{15025}$ cm = 122.6 cm	$\sqrt{493}$ cm = 22.2 cm	$\sqrt{80}$ cm = 8.94 cm	$\sqrt{676}$ m = 26 m	$\sqrt{52}$ m = 7.21 m	$\sqrt{130}$ cm = 11.4 cm	$\sqrt{289}$ cm = 17 cm	$\sqrt{514}$ km = 22.7 km	$\sqrt{97}$ m = 9.85 m	$\sqrt{15145}$ cm = 123.1 cm	$\sqrt{505}$ km = 22.5 km	$\sqrt{3200}$ cm = 56.6 cm	$\sqrt{664}$ m = 25.8 m	$\sqrt{146}$ cm = 12.1 cm	$\sqrt{109}$ m = 10.4 m	$\sqrt{1384}$ cm = 37.2 cm

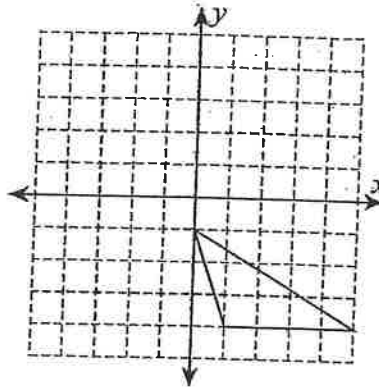
## Translation of Triangles

Graph the image of each triangle using the given translation. ← *Slide the figure.*

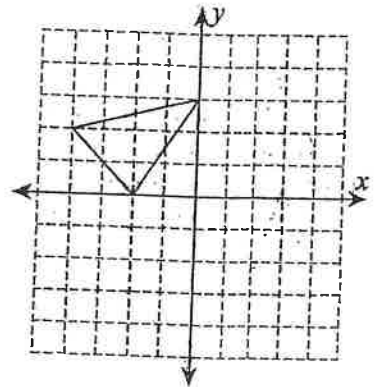
1) 4 units down **Example**



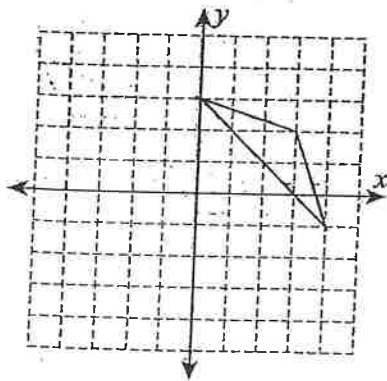
2) 6 units up and 5 units left



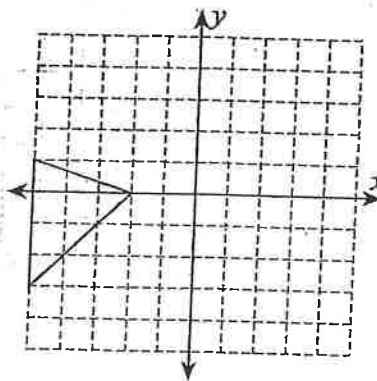
3) 5 units right and 3 units down



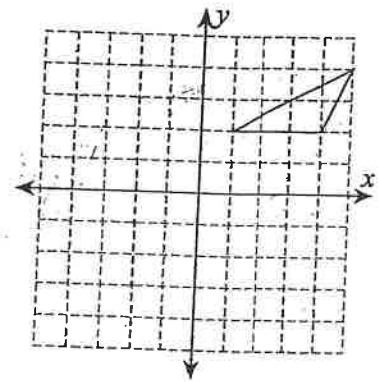
4) 5 units left and 1 unit down



5) 7 units right and 2 units up

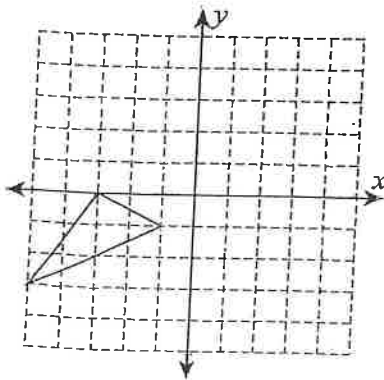


6) 3 units down and 4 units left



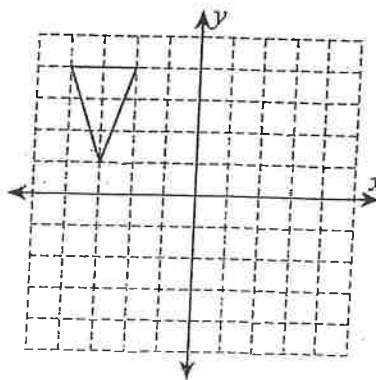
**Rotate 180°**

7) ~~4 units up and 5 units right~~



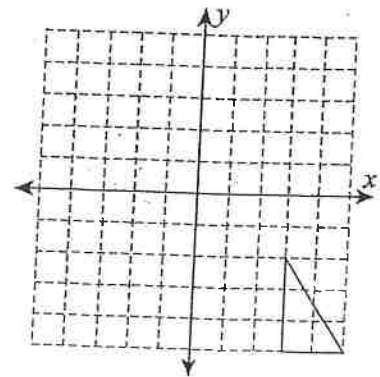
**Rotate 90° CW**

8) ~~4 units down and 1 unit right~~



**Rotate 90° CCW**

9) ~~2 units left and 5 units up~~



\* make sure to read which axis you

Kuta Software - Infinite Geometry Name \_\_\_\_\_

Reflections ← flip

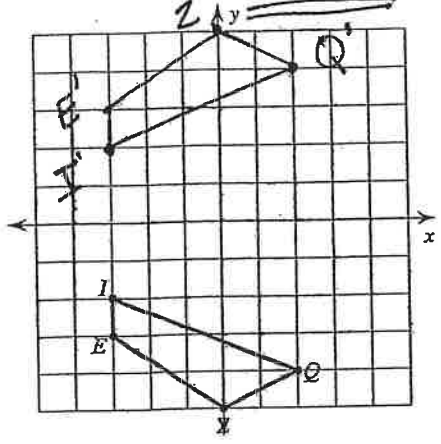
are reflecting over \*

Date \_\_\_\_\_ Period \_\_\_\_\_

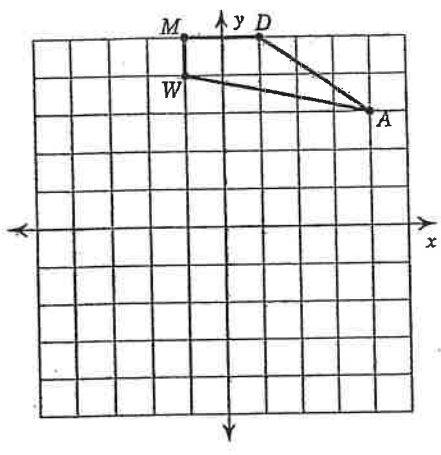
Graph the image of the figure using the transformation given. Label image points!

1) reflection across X-axis

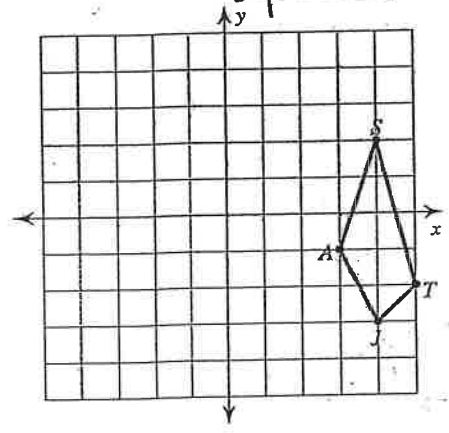
← X



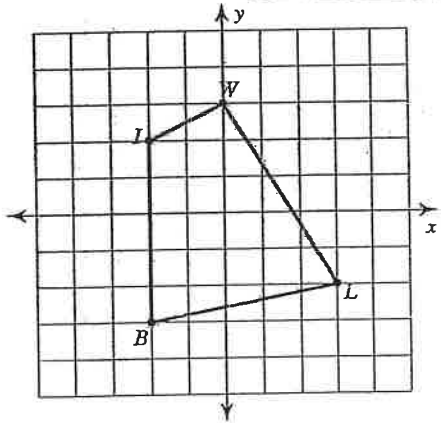
2) reflection across the x-axis



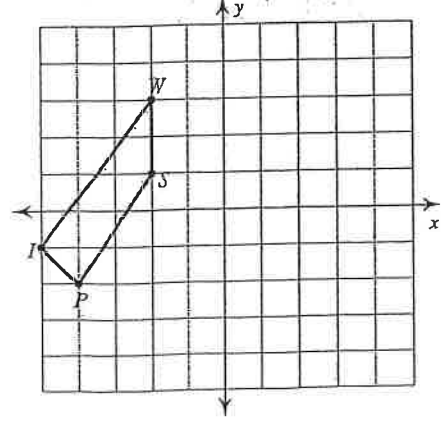
3) reflection across y-axis



4) reflection across x-axis



5) reflection across y-axis



6) reflection across x-axis

