

8.2 day #1

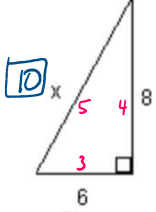
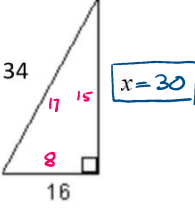
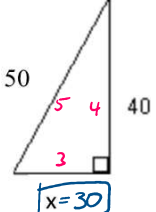
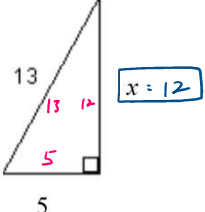
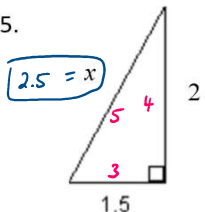
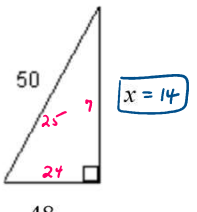
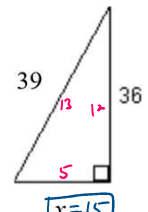
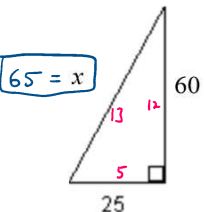
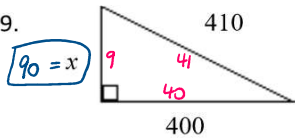
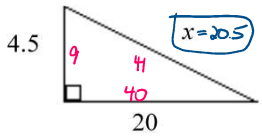
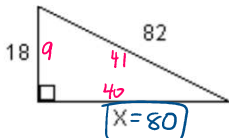
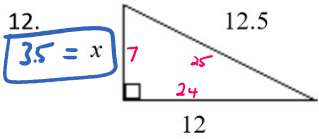
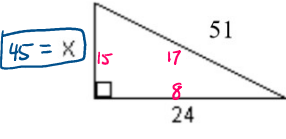
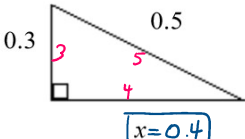
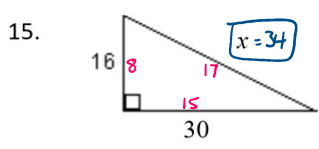
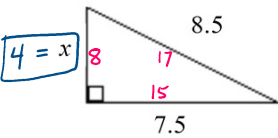
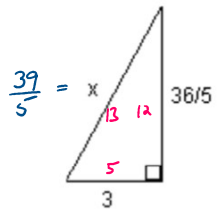
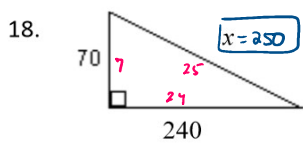
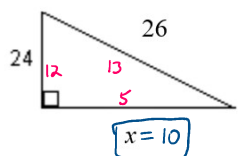
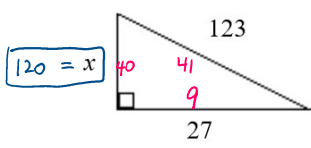
Tuesday, January 26, 2021 7:30 PM

Formal Geometry 8.2 Day 1 Worksheet

***Do all work on your own paper!**

Name: _____

For #1 – 20: Do NOT use the Pythagorean Theorem!

1.  $x = 10$
2.  $x = 30$
3.  $x = 30$
4.  $x = 12$
5.  $2.5 = x$
6.  $x = 14$
7.  $x = 15$
8.  $65 = x$
9.  $90 = x$
10.  $x = 205$
11.  $x = 80$
12.  $35 = x$
13.  $45 = x$
14.  $x = 0.4$
15.  $x = 34$
16.  $4 = x$
17.  $\frac{39}{5} = x$
18.  $x = 250$
19.  $x = 10$
20.  $120 = x$

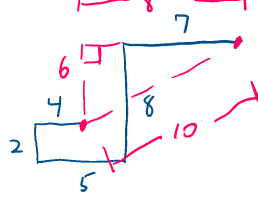
21) While following a directions on a map to find buried treasure, Max walks seven paces west, eight paces south, five paces west, two paces north, and then four paces east. How much longer did Max walk by following the directions than he would have had to if he had gone straight from his starting point to the buried treasure?

21) While following a directions on a map to find buried treasure, Max walks seven paces west, eight paces south, five paces west, two paces north, and then four paces east. How much longer did Max walk by following the directions than he would have had to if he had gone straight from his starting point to the buried treasure?

$$7+8+5+2+4 = 26$$

$$\begin{array}{r} 26 \\ -10 \\ \hline 16 \end{array}$$

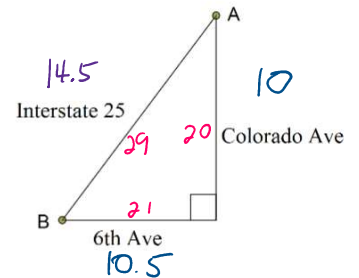
Max walked 16 extra paces



4

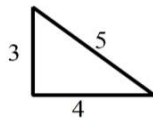
22) Garrett wants to drive from point A to point B on Interstate 25, but due to a detour, he must first drive south for 10 miles on Colorado Avenue and then drive east on 6th Avenue for 10.5 miles. How far is point A from point B?

14.5 mi



23) The Hopewell people were Native Americans whose culture flourished in the central Ohio Valley about 2000 years ago. The Hopewell people constructed earthworks using triangles, including those below.

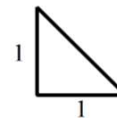
Triangle A



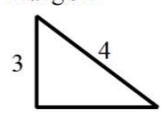
Triangle B



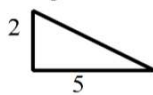
Triangle C



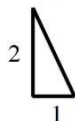
Triangle D



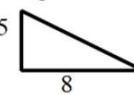
Triangle E



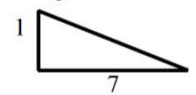
Triangle F



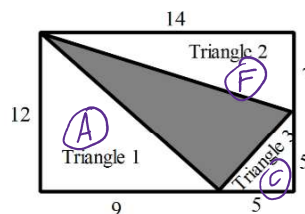
Triangle G



Triangle H



The diagram below shows the layout of some Hopewell earthworks. The centers of the Newark Octagon, the Newark Square and the Great Circle were at the corners of the shaded triangle.



The three right triangles surrounding the shaded triangle form a rectangle measuring 12 units by 14 units. Which of the Hopewell triangles is similar to $\Delta 1$, $\Delta 2$, and $\Delta 3$ in the diagram?

A. $\Delta 1 \sim \Delta A$; $\Delta 2 \sim \Delta F$; $\Delta 3 \sim \Delta C$

C. $\Delta 1 \sim \Delta D$; $\Delta 2 \sim \Delta F$; $\Delta 3 \sim \Delta C$

B. $\Delta 1 \sim \Delta A$; $\Delta 2 \sim \Delta B$; $\Delta 3 \sim \Delta C$

D. $\Delta 1 \sim \Delta D$; $\Delta 2 \sim \Delta B$; $\Delta 3 \sim \Delta C$

Answers:

Answers:

- | | | | | | | | |
|-------|------------|---------|---------|---------|--------------------|----------------|-------|
| 1) 10 | 2) 30 | 3) 30 | 4) 12 | 5) 2.5 | 6) 14 | 7) 15 | 8) 65 |
| 9) 90 | 10) 20.5 | 11) 80 | 12) 3.5 | 13) 45 | 14) 0.4 | 15) 34 | |
| 16) 4 | 17) $39/5$ | 18) 250 | 19) 10 | 20) 120 | 21) 16 extra paces | 22) 14.5 miles | 23) A |