sq. units or units sq or units^2 | NOT OKAY: ^{2}units

Name: _____ Date: Dec 3 Hour: 5th

Unit 4A: Day 2: Area of Triangles

Focus Question: How can I find the area of a triangle?

A. The Formula for Area of a Triangle

1. Find the area of top rectangle ABCD at right.

21 square units

2. Connect A to C to create triangle ABC.
What type of triangle is ABC? How do you know?

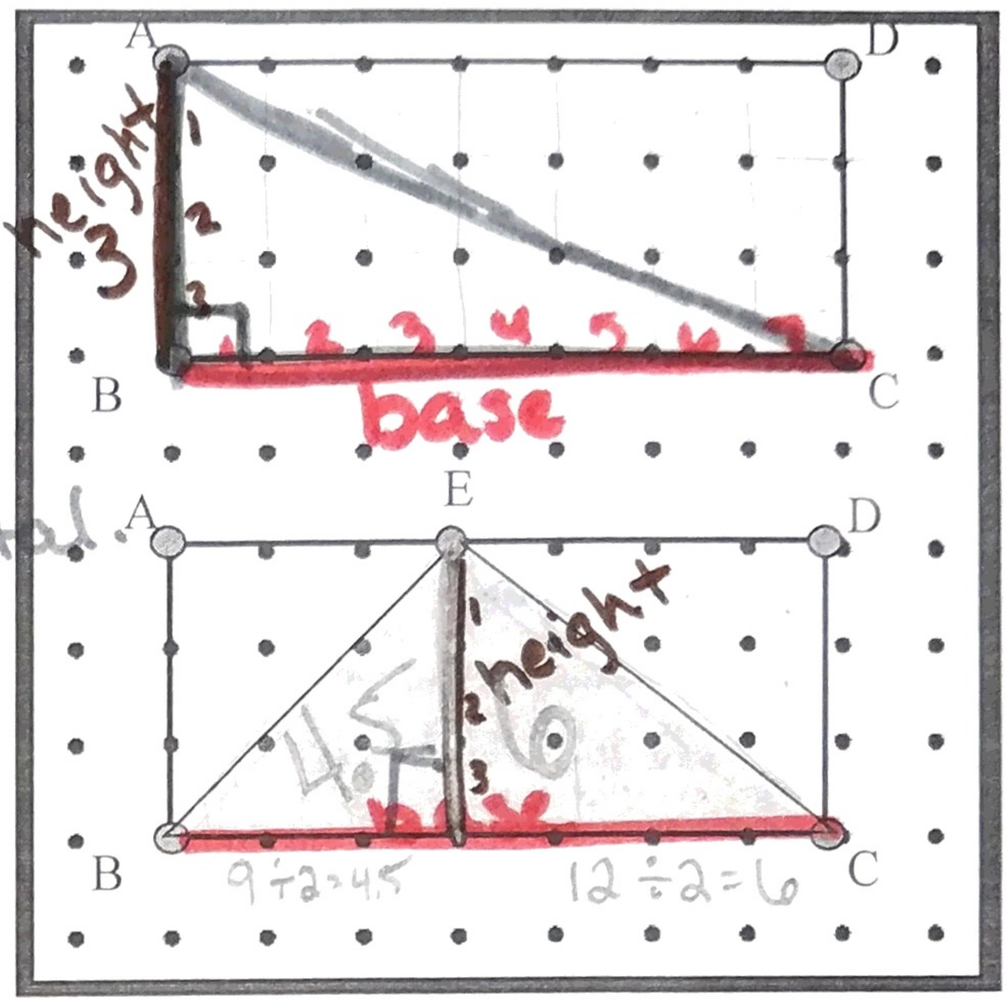
Right Triangle b/c the lines are vertical & horizontal.

3. What is the area of triangle ABC? Explain.

10.5 sq. units b/c it's half the rectangle (21 ÷ 2 = 10.5)

4. Find the area of shaded triangle BEC.

4.5 + 6 = 10.5 sq. units



5. How does the area of triangle ABC compare to triangle BEC?

10.5 10.5 They're equal!

6. How does the base of triangle ABC compare to triangle BEC?

7 7 They're equal!

7. How does the height of triangle ABC compare to triangle BEC?

3 3 They're equal!

8. What is the relationship (coinciding, parallel or perpendicular)of the base and the height?

Perpendicular

9. Triangle BEC was rotated. Does that change its area?

No!

10. Did the rotation change where the base is?

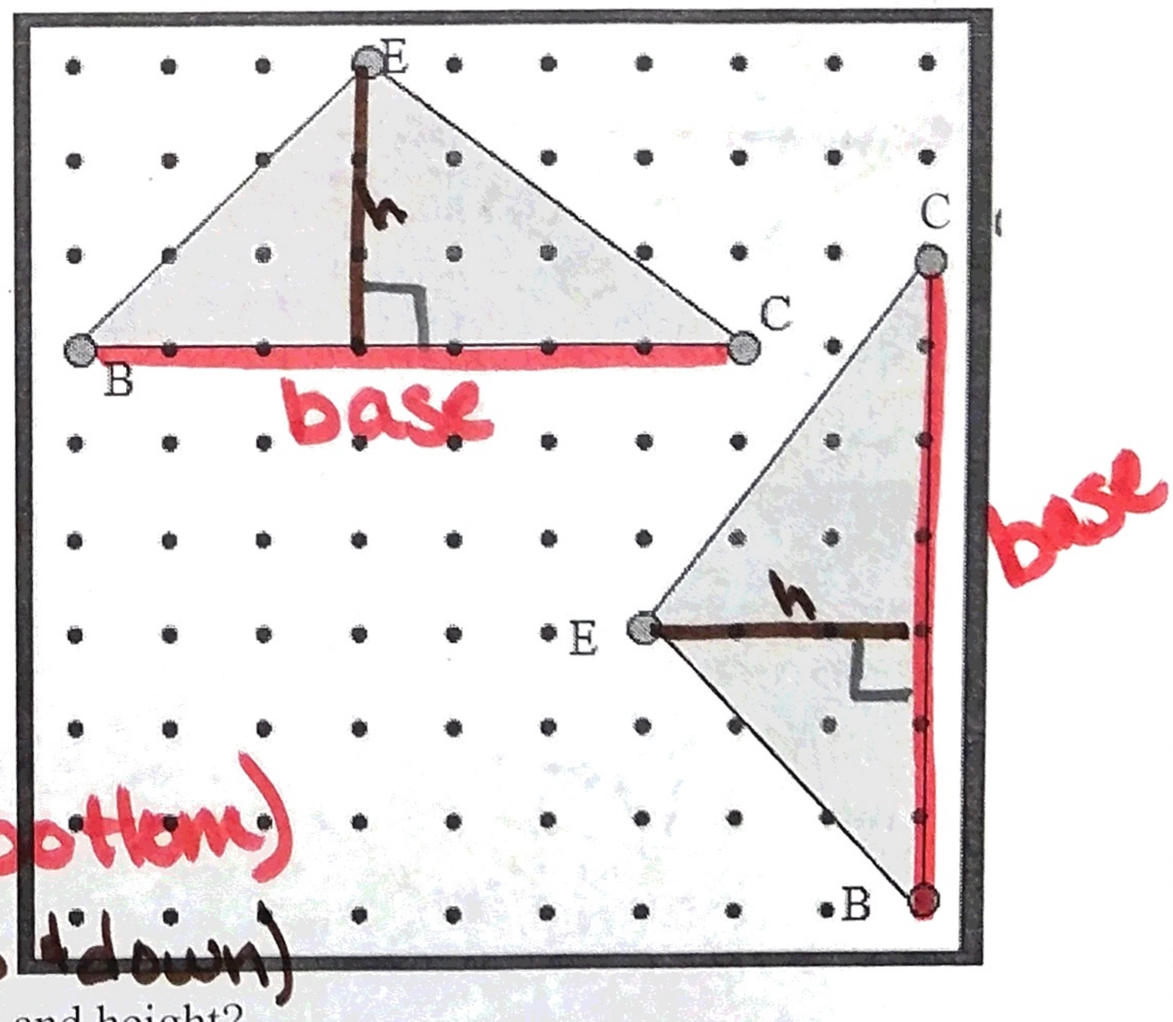
Yes (base does NOT mean bottom)

11. Did the rotation change where the height is?

Yes (height does NOT mean up & down)

12. Does the rotation change the **relationship** of the base and height?

No!

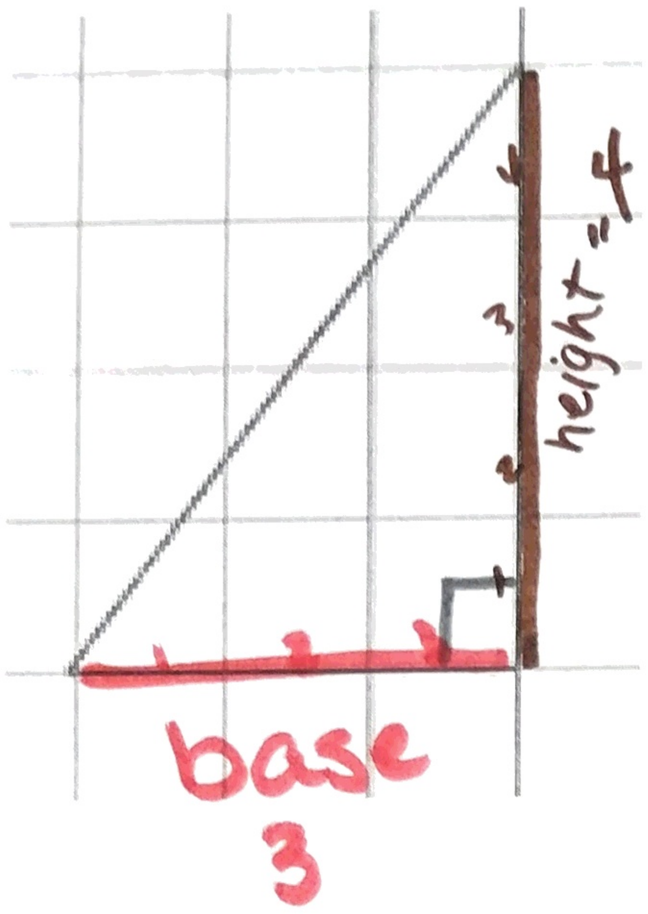


13. What is the area formula for any triangle?

$A = \frac{b \cdot h}{2}$ when the *h* and *b* are 1

$$A = \frac{b \cdot h}{2}$$

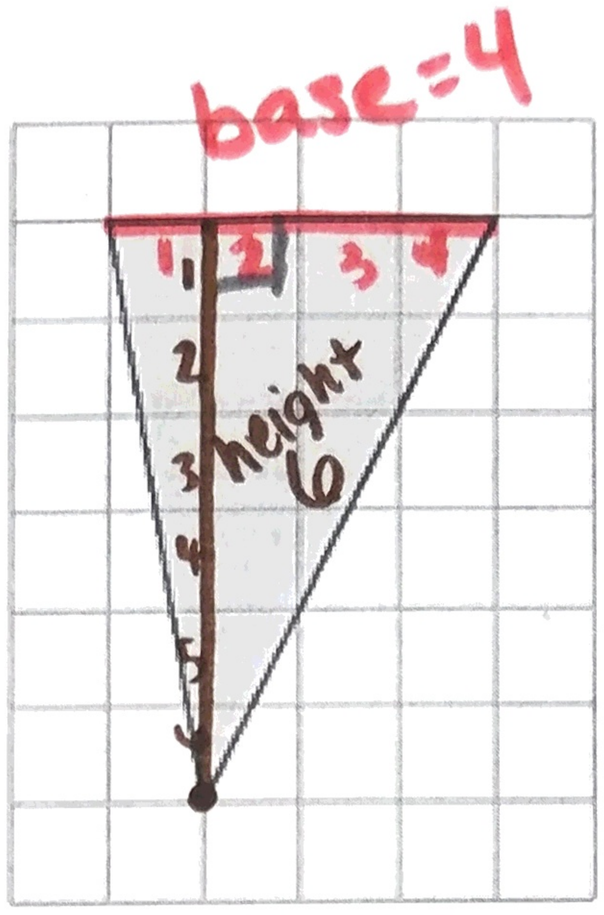
B. Find the area of each triangle below. Think about which side should be the base and where you should draw the height.



$A = \frac{3 \cdot 4}{2}$

$A = \frac{12}{2}$

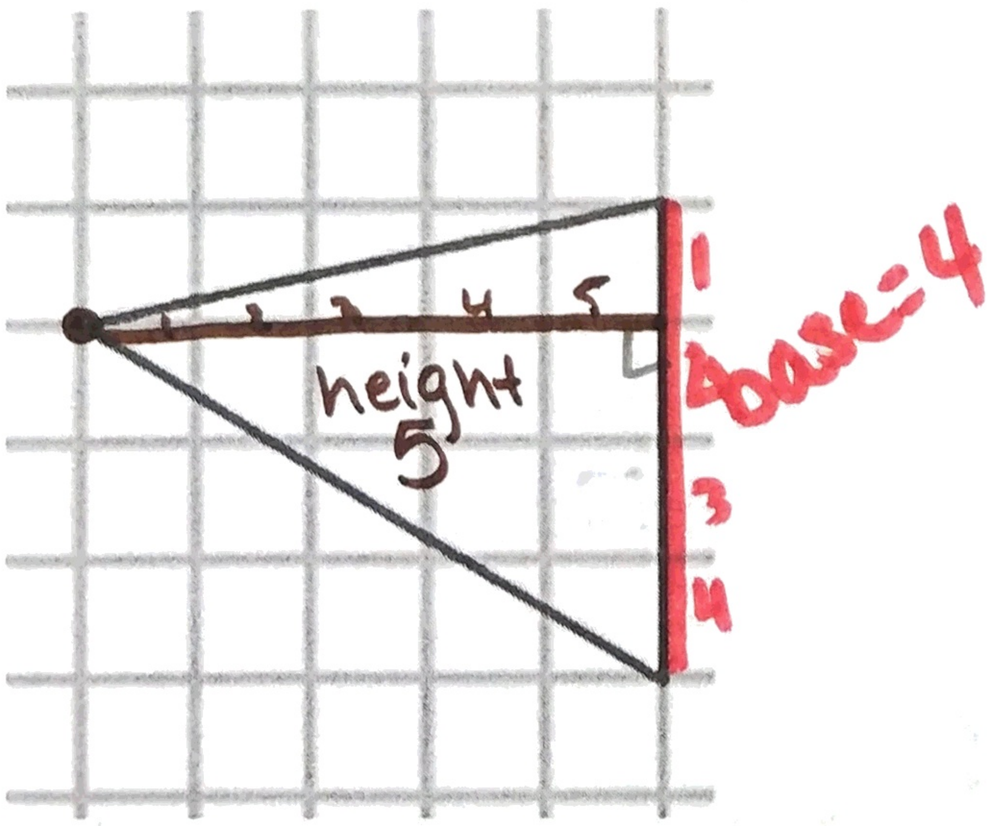
A = 6 sq units



$A = \frac{4 \cdot 6}{2}$

$A = \frac{24}{2}$

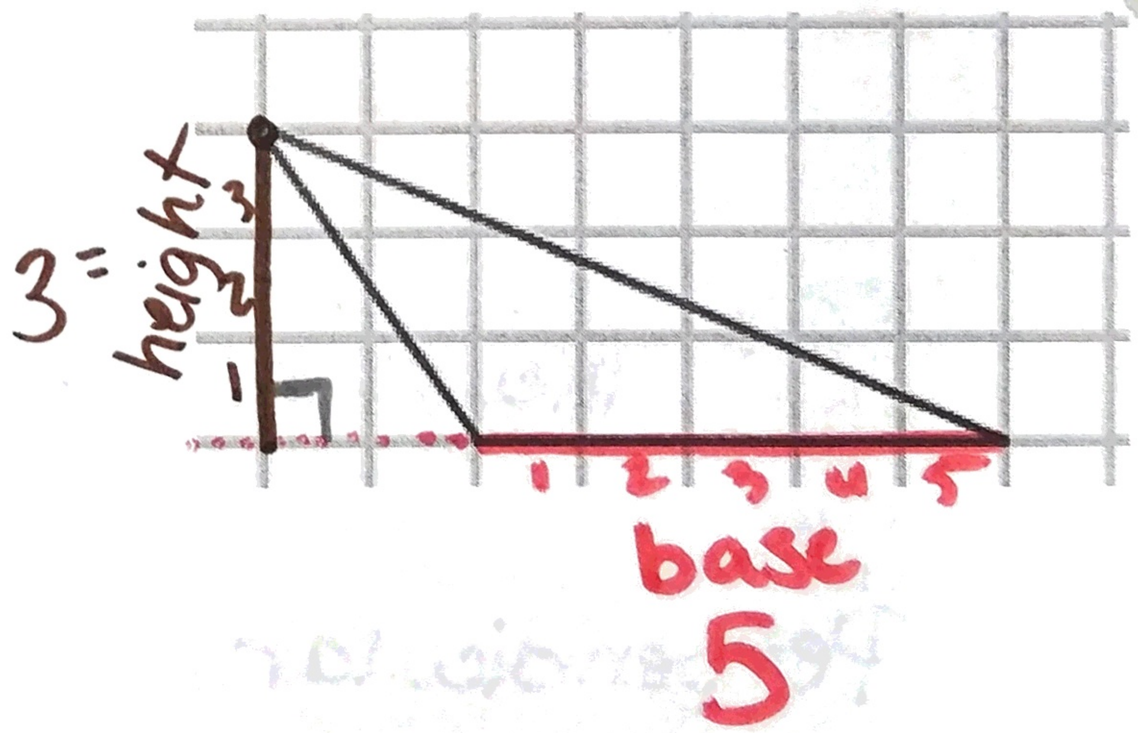
A = 12 sq. units



$A = \frac{4 \cdot 5}{2}$

$A = \frac{20}{2}$

A = 10 sq. units



$A = \frac{5 \cdot 3}{2}$

$A = \frac{15}{2}$

A = 7.5 sq. units