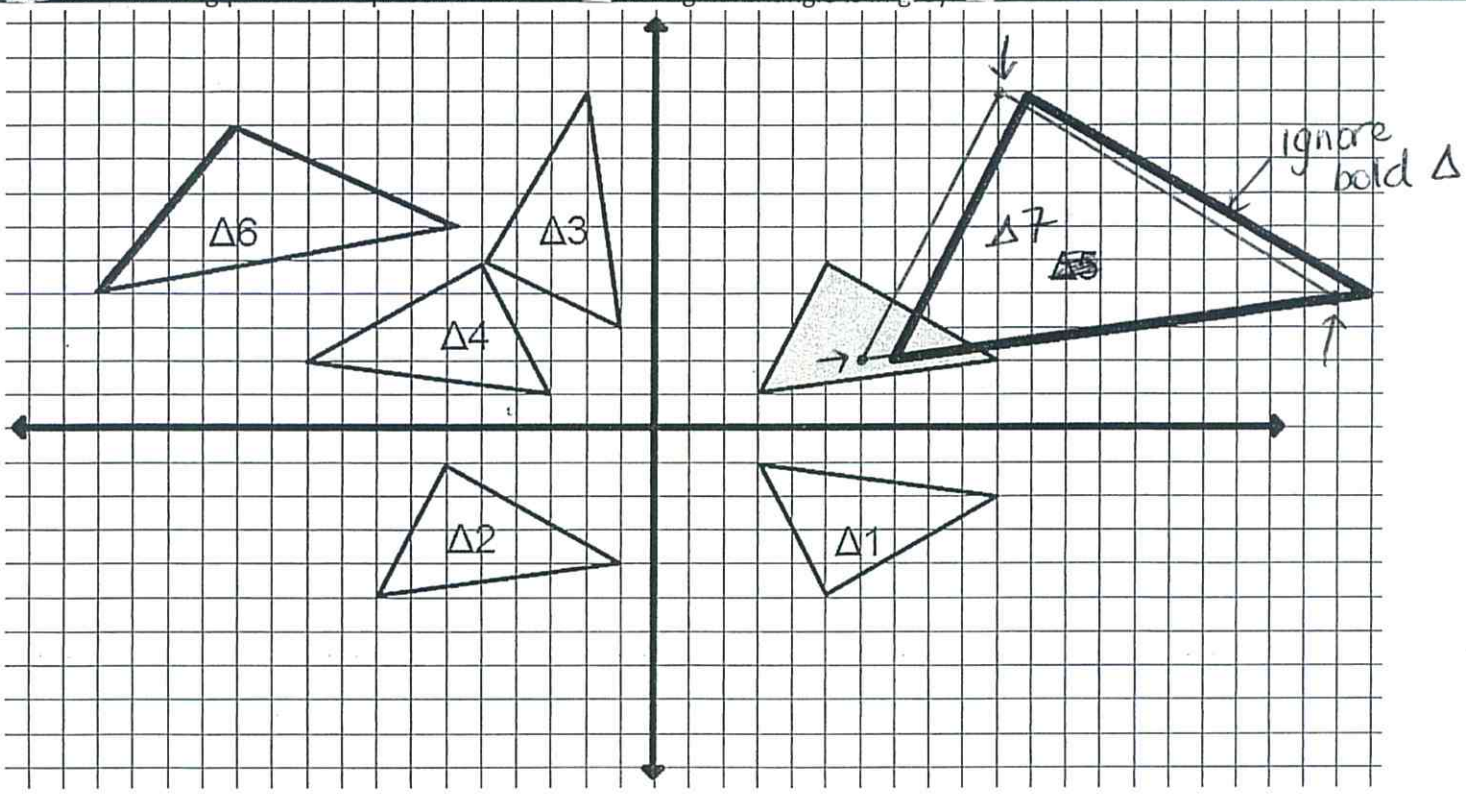
Use the following picture for questions 10 – 12. The original triangle is in grey



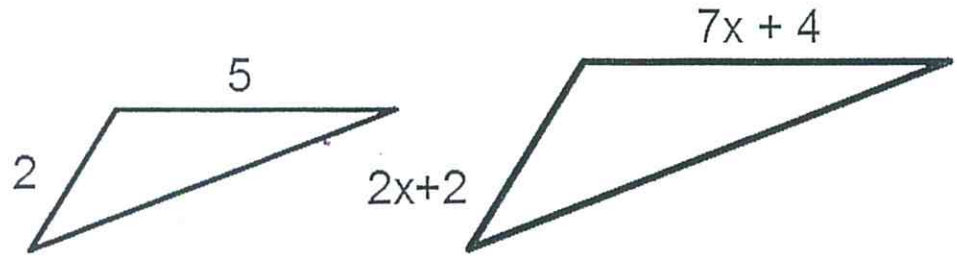

10. For each of the triangles, describe the transformation and then write a general rule for the transformation shown.

| Triangle Number | Describe Transformations | Write a Rule |
|---|---|---|
| Δ1 | | (x, y) →( , ) |
| Δ2 | | (x, y) →( , ) |
| Δ3 | | (x, y) →( , ) |
| Δ4 | | (x, y) →( , ) |
| ~~Δ5~~ Δ7 | | (x, y) →( , ) |
| ~~Δ6~~ | | (x, y) →( , ) |

11. Which of the triangles are congruent to the original? _____

12. Which of the triangles are similar to the original? _____

13. Use the following picture to solve for the scale factor for the larger triangle to the smaller triangle. (Treat as dilation)




14. A 5'6" man casts a shadow that is 12 feet long. What is the height of a tree that casts a 20 foot shadow?

(Treat as dilation)