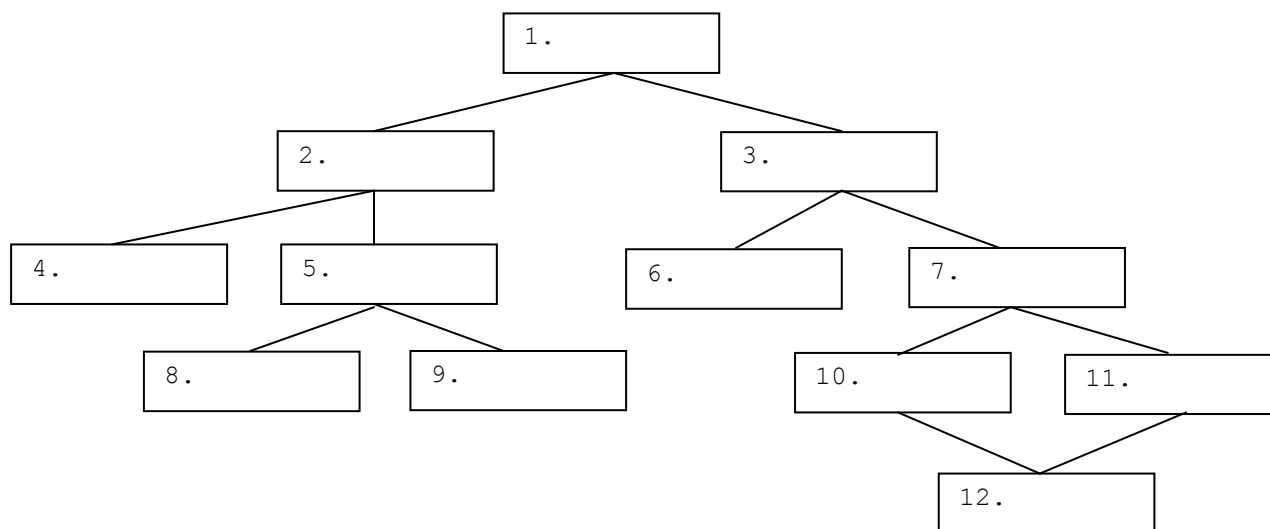


INDEX: [GOAL: 20-25 Minutes All Correct]**Score:** ____/45**Special Parallelograms and Trapezoids**

1-12. Fill in the hierarchy of shapes from simplest to most complex using the words from the word bank.

Quadrilateral	Triangle	Parallelogram	Rhombus
Trapezoid	Isosceles	Square	Rectangle
Scalene	Equiangular	Shape	Equilateral

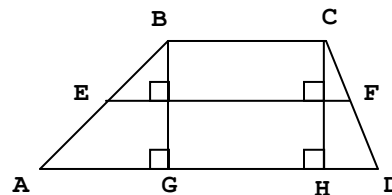
**13-23. True or false?**

13. A parallelogram can be considered a specific type of trapezoid.
14. Equilateral triangle can be considered a specific type of isosceles triangle.
15. Squares can be considered a specific type of rhombus.
16. Squares can be considered a specific type of rectangle.
17. A rectangle can be considered a specific type of rhombus.
18. Both triangles and trapezoids can be described as isosceles.
19. The base angles of a trapezoid must be congruent.
20. The non-base angles of a trapezoid must be congruent.
21. Unlike a parallelogram, a trapezoid's angles do not have to add to 360° .
22. An isosceles trapezoid's base is always twice the length of its opposite side.
23. Unlike a parallelogram, a trapezoid can have exactly two right angles.

24-44. Write the missing statements and justifications in the proof.

Given: ABCD is a trapezoid, EF is ABCD's median.

Prove: ABCD's median is parallel to the bases and has length the average of bases BC and AD. (In other words, prove Theorem 47.)



Proof: Statements

Justifications

24.	25.
26. $\overline{EF} \parallel \overline{AD}$	26.
27. $\overline{EF} \parallel \overline{BC}$	27.
28. $AE = EB$	28.
29. \overline{EF} bisects \overline{BG}	29.
30. Distance from E to \overline{BG} is $\frac{1}{2} AG$	30.
31. \overline{EF} bisects \overline{CH}	31.
32. Distance from F to \overline{CH} is $\frac{1}{2} HD$	32.
33. $\overline{BG} \parallel \overline{CH}$	33.
34. $GH = BC =$ distance between BG and CH along EF	34.
35. $EF = \frac{1}{2} AG + \frac{1}{2} HD + GH$	35.
36. $2 EF = AG + HD + 2 GH$	36.
37.	37. Substitution Property
38.	38. Segment Addition Property
39. $2 EF = AD + BC$	39.
40.	41.
42.	43.

44-45. Use the proof's figure to answer the questions.

44. $BC = 5, AD = 10, EF = ?$

45. $BC = 3, AD = 7, EF = ?$