

GEOMETRIC DICHOTOMOUS KEY

A.K.A. CHOOSE YOUR OWN SHAPEVENTURE

Instructions: Take a shape and go through the questions, following the instructions for the answer you provide each question. When you get to an underlined word, that is one of the names for the shape you are identifying. Continue until you do not have another “goto” instruction.

After you find all of the names for a shape, find it on a geometry template and copy it and *all* of its names into your blue book.

1 A) <u>polygon</u> with more than 3 sides – Goto 6 1 B) <u>polygon</u> with 3 sides – Goto 2
2 A) <u>triangle</u> with 3 sides equal? -- <u>equilateral triangle</u> 2 B) <u>triangle</u> with fewer than 3 sides equal? -- Goto 3
3 A) 2 sides equal? -- Goto 4 3 B) No sides equal? -- Goto 5
4 A) <u>isosceles triangle</u> has a right angle? -- <u>right triangle</u> 4 B) <u>isosceles triangle</u> does not have a right angle.
5 A) <u>scalene triangle</u> has a right angle? -- <u>right triangle</u> 5 B) <u>scalene triangle</u> does not have a right angle.
6 A) More than 4 sides? -- Goto 12 6 B) 4 sides? -- Goto 7
7A) <u>quadrilateral</u> has 2 sets of parallel sides? -- Goto 8 7 B) <u>quadrilateral</u> has less than two sets of parallel sides -- Goto 11
8 A) <u>parallelogram</u> has all four sides congruent? -- Goto 9 8 B) <u>parallelogram</u> 2 <i>sets</i> of congruent sides, but not all 4 -- Goto 10
9 A) <u>rhombus</u> has right angles? -- <u>square</u> (note, a square is also a <u>rectangle</u>)

9 B) <u>rhombus</u> has 2 separate sets of congruent angles.
10 A) <u>parallelogram</u> has right angles? – <u>rectangle</u> (note, a square is a rectangle) 10 B) <u>parallelogram</u> has 2 sets of congruent angles – parallelogram
11 A) One set of parallel lines? -- <u>trapezoid</u> 11 B) No sets of parallel lines? -- quadrilateral
12 A) More than 5 sides? --Goto 14 12 B) 5 sides? -- Goto 13
13 A) <u>pentagon</u> with all sides and angles congruent? -- <u>regular pentagon</u> 13 B) <u>pentagon</u> without all sides and angles congruent? -- <u>irregular pentagon</u>
14 A) More than 6 sides? -- Goto 16 14 B) 6 sides? -- Goto 15
15 A) <u>hexagon</u> with all sides and angles congruent? -- <u>regular hexagon</u> 15 B) <u>hexagon</u> without all sides and angles congruent? -- <u>irregular hexagon</u>
16 A) More than 7 sides? -- Goto 18 16 B) 7 sides – Goto 17
17 A) <u>heptagon</u> with all sides and angles congruent? -- <u>regular heptagon</u> 17 B) <u>heptagon</u> without all sides and angles congruent? -- <u>irregular heptagon</u>
18 A) More than 8 sides? -- n-gon where “n” is the number of sides 18 B) 8 sides? -- Goto 19
19 A) <u>octagon</u> with all sides and angles congruent? -- <u>regular octagon</u> 19 B) <u>octagon</u> without all sides and angles congruent? -- <u>irregular octagon</u>