Circles Part 1 Formative

1. Arc AXB is 100, what is left for arc AYB?
2. Angle b is inscribed, therefore angle b is equal to half of the arc it makes. You first need to find what is left for the arc that is created from d to c.
3. A is part of a chord. We have intersecting chords so we need to use part times part equals part times part with the piece for a being our “x”
4. Find x first by creating an equation. The two tangents are going to be equal to each other. Once you know x, you will need to plug it back in to find the actual length of BC.
5. AC is going to be perpendicular to CB because it is a tangent and radius. You end up with a right triangle so you can use Pythagorean theorem where CB will be your x and Ab is the hypotenuse.
6. Part times part=part times part
7. Exterior angle=big arc-little arc/2
8. Use the exterior angle equation from #7 but you will first need to find arc AE
9. Angle HKI is an interior/inside angle so we will do arc+arc/2
10. Chords that are the same distance from the center will be congruent.
11. Pythagorean theorem
12. Only touches a circle ONE time
13. Remember to find the missing pieces first before finding perimeter. You can find the missing pieces using the parts you know and seeing what is congruent to those pieces. You will have to use the whole side of 19.6 and subtract it from 8.6 to find the top right piece. The top right piece will be the same as the top left piece.
14. Tangent and radius are PERPENDICULAR so it is a right angle
15. A chord has to be a segment that does not exit the circle
16. Exterior angle formula from #7. In this problem the angle=22, the big arc will be 125 and the little arc will be x. Once you have your equation filled in, you will solve for x. Hint: you will need to move the 2 to left by multiplying the left side by 2.

F

1.

3

K

6

E

H

G

\*this picture is NOT drawn to scale!! You will want to draw it on your paper too to fill in the parts! If EF is 15 and EK is 6, then we know that KF will have to be 9. This now means that they only part we don’t know is going to be GK so we can make that x. Which then means we will have 6(9)=3x🡪this gives us that x is 18.