1_5: We can construct a right triangle with sides 2a, a + h, and 2a + h.

Using the Pythagorean Theorem, we have $(2a)^2 + (a + h)^2 = (2a + h)^2$.

After foiling: $4a^2 + a^2 + 2ah + h^2 = 4a^2 + 4ah + h^2$

After subtracting $4a^2$, $4ah$, and h^2 from both sides: $a^2 - 2ah = 0$

After factoring: a(a – 2h) = 0

Thus, a = 2h

Which means, $AB = \frac{1}{5}$ of the radius of the large circle.