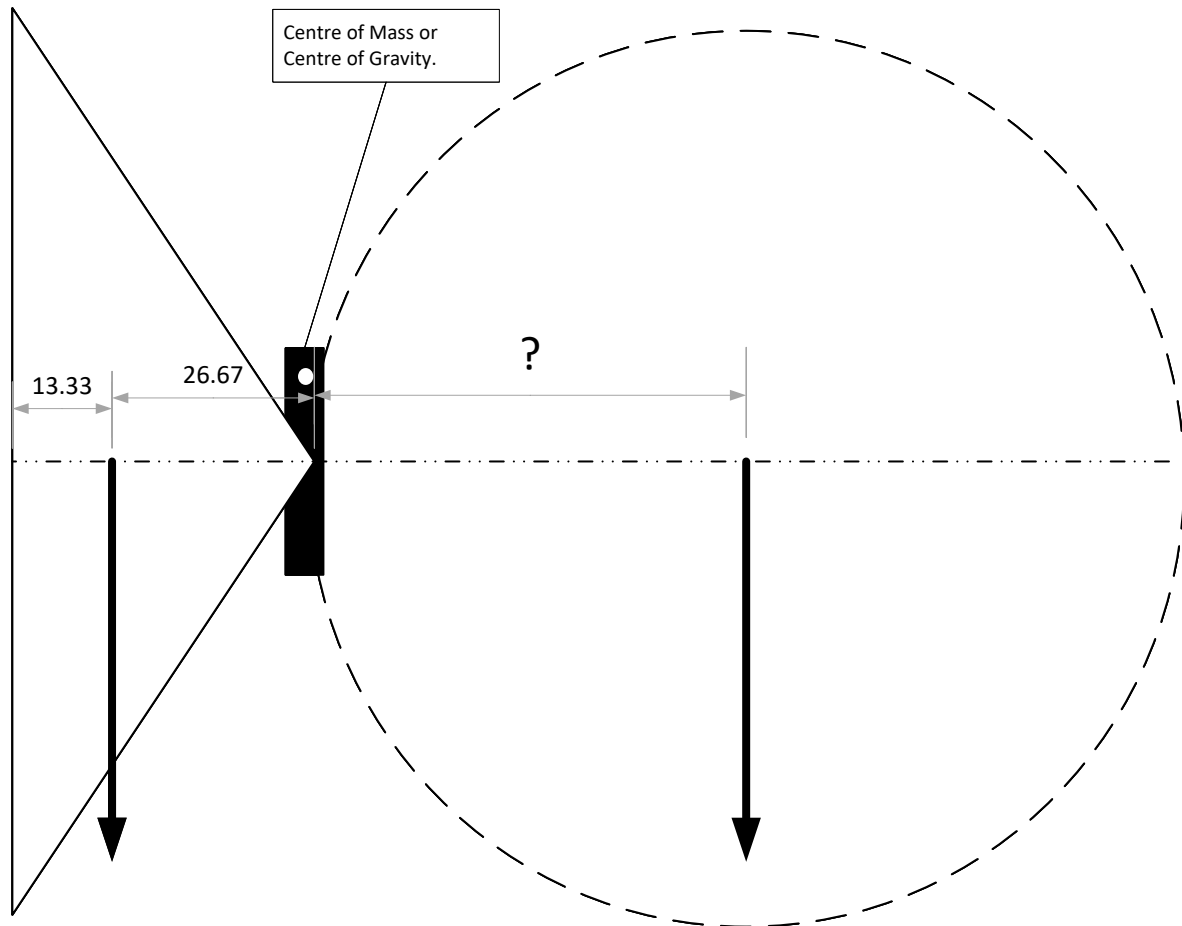


Can you draw a circle so that your fish swims level?



$$\text{Area of Triangle} \times 26.67 = \text{Area of circle} \times \text{radius}$$

1. The idea is to make a fish that balances when you hold it by a paper clip at the centre of gravity.
2. Calculate the area of the triangle.
3. Find the centre of gravity of the triangle.
4. Calculate the moment of the triangle using the centre of gravity for the overall fish as the centre of moments.
5. Calculate the moments of the circle:
  - a. You will need to calculate the area that the circle needs to be.
  - b. You will need to calculate the radius of the circle.
  - c. The area of a circle is calculated by  $\pi r^2$ .
  - d. The distance from the centre of gravity of the fish to that of the circle is  $r$ .
6. Using a compass, draw the body of the fish to the correct size.
7. Cut out the whole fish carefully.
8. Use a paperclip to balance the fish.