Suction Feeding Exercise

Goals:

1. Find the volume of the feeding mechanism of the fish at rest.
2. Find the volume of the feeding mechanism of the fish at maximum expansion.
3. Find the area of the mouth of the fish at maximum expansion.
4. Determine the velocity of water flow into the mouth using the formula:

$$velocity=\frac{Change in Volume}{Change in Time}×\frac{1}{Area of Mouth}$$

3-Dimensional Model of the Feeding Mechanism

Mouth

3-Dimensional Model of the Feeding Mechanism Broken into Two Parts

**B**

**A**

Mouth

2-Dimensional Model of the Feeding Mechanism

 

**A**

**B**

Mouth

2-Dimensional Model of the Feeding Mechanism Broken into Two Parts

(Note: An extension is shown to help you find the area of the truncated cone. )

**b**

**a**

**c**

**d**

**e**

**a**

**B**

**A**

a = radius

d = radius

b = length

c = length

e = length