# Bloodstain Analysis
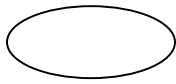# Calculation of Impact Angles
By Bill Licopoli

Name_____
Date_____Pd_____

Directions:  Determine the 'angle of impact' for each bloodstain.  Show all work.
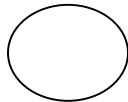
1.
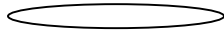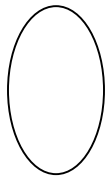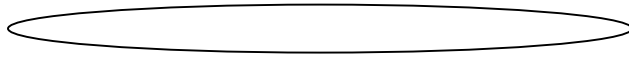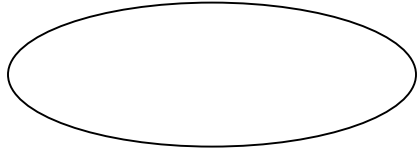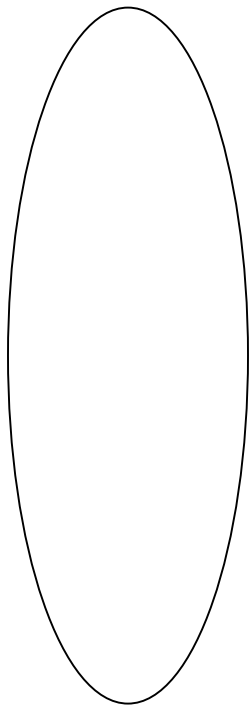
2.

3.

4.

5.

6.

7.

8.

9.

10.

Answers:
*(measurements may be slightly different due to printer quality, size, etc.)*
*(work is shown for #1 only rounded to two significant figures)*

1.     w (width) = 1.0 cm
       l (length) = 2.2 cm
          The equation for the 'angle of impact' is:

$$\sin > = \frac{width}{length}$$

$$\sin > = \frac{1.0 \text{ cm}}{2.2 \text{ cm}}$$

$$> = \sin^{-1} \frac{1.0 \text{ cm}}{2.2 \text{ cm}}$$

$$> = \sin^{-1} .45$$

$$> = 27 \text{ degrees}$$

2.     w (width) = .6 cm
       l (length) = 4.1 cm                       angle of impact = 8.4 degrees

3.     w (width) = 1.3 cm
       l (length) = 1.6 cm                       angle of impact = 54 degrees

4.     w (width) = .3 cm
       l (length) = 2.9 cm                       angle of impact = 5.9 degrees

5.     w (width) = 1.3 cm
       l (length) = 2.2 cm                       angle of impact = 36 degrees

6.     w (width) = 1.6 cm
       l (length) = 7.6 cm                       angle of impact = 12 degrees

7.     w (width) = .6 cm
       l (length) = 8.3 cm                       angle of impact = 4.1 degrees

8.     w (width) = 1.9 cm
       l (length) = 5.4 cm                       angle of impact = 21 degrees

9.     w (width) = .9 cm
       l (length) = 6.1 cm                       angle of impact = 8.5 degrees

10.  w (width) = 3.2 cm
     l (length) = 9.2 cm        angle of impact = 20 degrees