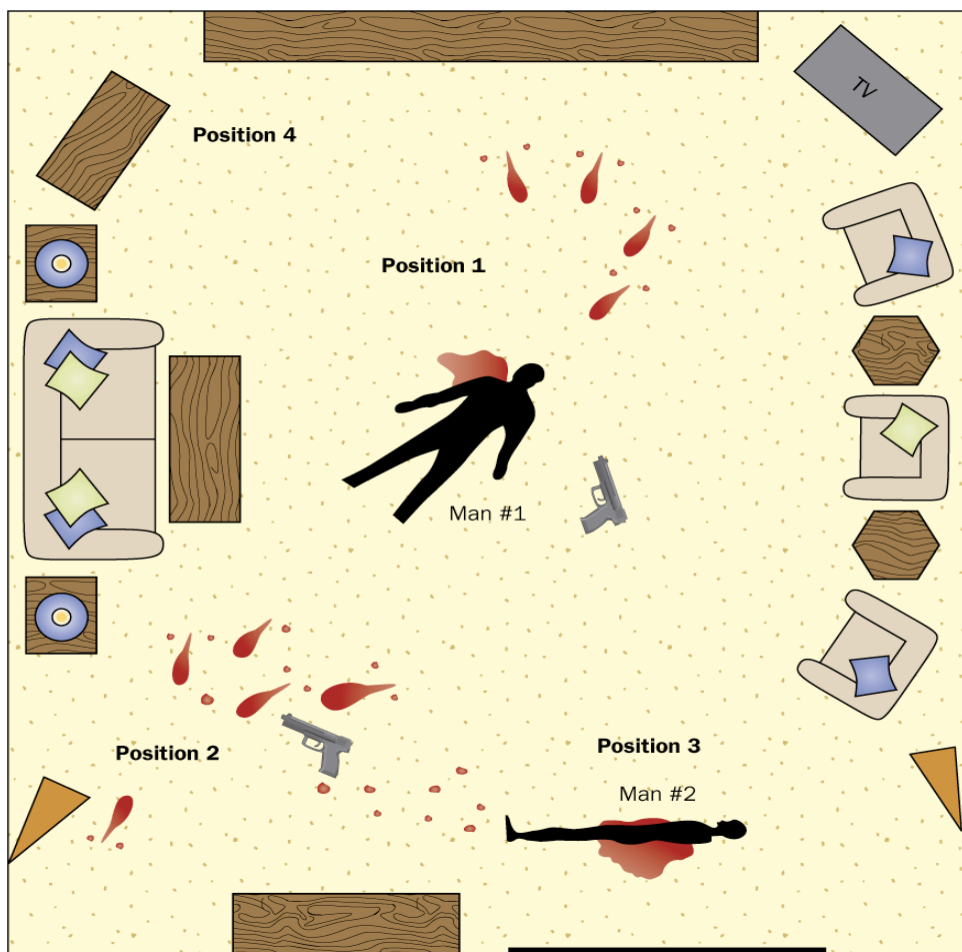


ACTIVITY 8-7: CRIME-SCENE INVESTIGATION (Blood Pattern Analysis)

Directions: Complete the steps for the activity listed below. Record your results in the picture, data table, and answer the questions.

1. Examine Crime Scene Diagram 1 and complete the **lines of convergence**.
 - a. Determine the position of each man at the time of the shootings. Label the position for Man 1 in the diagram by drawing a circle around the point of origin.
 - b. Label the position for Man 2 in the diagram by drawing a circle around the point of origin.
2. Data Table 1 contains some of the measurements for the bloodstains found at each position. Complete the table by filling in the blanks.

Crime Scene Diagram 1 (Note: Not drawn to scale)



Data Table

Stain #	Width of Stain (W) (mm)	Length of Stain (L) (mm)	W/L ratio (Sine Value)	Angle of Impact (nearest degree) Use Sin-1	Distance from Near Edge of Stain (feet)	Tan Value of Angle of Impact (to four decimal places)	Height (<i>h</i>) of wound above floor (feet) $h = \text{Tan} \times \text{distance}$
1	9.6	18.1			4.0		
2	9.0	18.6			4.4		
3	13.2	17.8			2.2		
4	12.8	18.9			2.8		
5	13.2	19.2			2.5		
6	4.5	9.0			10.1		
7	5.1	10.6			10.3		
8	3.9	8.4			10.4		
9	3.6	8.1			10.3		

Stain #1-5 are near position 2 and Stain #6-9 are near position 1.

Questions:

- Both men died. Man 1 was shot through the forehead and died instantly. Man 2 was shot in the stomach and was found dead at the scene as well. Who was shot first? Support your answer with evidence from the crime scene.
- Based on your calculations, which man was most likely standing when he was shot? Support your answer with evidence from the crime scene.
- In position two, there are four bloodstains in front and one bloodstain behind the victim. How do you account for this?
- Based on the blood-spatter evidence, describe the series of events resulting in the death of these two men. Support your theory with evidence obtained from the blood-spatter analysis.
- Did your results agree with conclusions made in statement 2? Explain your reasoning.