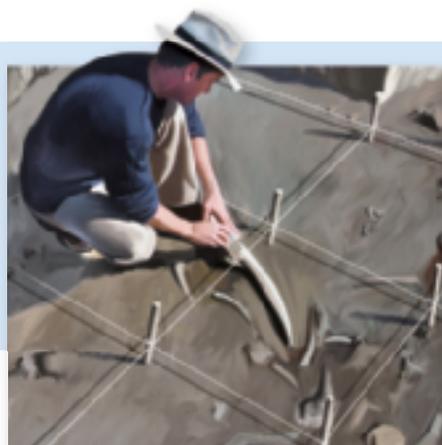


**MULTI-STEP
TEST PREP**



22. This problem will prepare you for the Multi-Step Test Prep on page 34. Name an object at the archaeological site shown that is represented by each of the following.
- a point
 - a segment
 - a plane

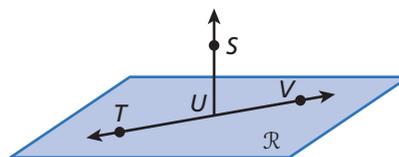


Draw each of the following.

- plane \mathcal{H} containing two lines that intersect at M
- \overleftrightarrow{ST} intersecting plane \mathcal{M} at R

Use the figure to name each of the following.

- the intersection of \overleftrightarrow{TV} and \overleftrightarrow{US}
- the intersection of \overleftrightarrow{US} and plane \mathcal{R}
- the intersection of \overleftrightarrow{TU} and \overleftrightarrow{UV}



Write the postulate that justifies each statement.

- The line connecting two dots on a sheet of paper lies on the same sheet of paper as the dots.
- If two ants are walking in straight lines but in different directions, their paths cannot cross more than once.
- Critical Thinking** Is it possible to draw three points that are noncoplanar? Explain.

Tell whether each statement is sometimes, always, or never true. Support your answer with a sketch.

- If two planes intersect, they intersect in a straight line.
- If two lines intersect, they intersect at two different points.
- \overleftrightarrow{AB} is another name for \overleftrightarrow{BA} .
- If two rays share a common endpoint, then they form a line.
- Art** Pointillism is a technique in which tiny dots of complementary colors are combined to form a picture. Which postulate ensures that a line connecting two of these points also lies in the plane containing the points?
- Probability** Three of the labeled points are chosen at random. What is the probability that they are collinear?



- Campers often use a cooking stove with three legs. Which postulate explains why they might prefer this design to a stove that has four legs?
- Write About It** Explain why three coplanar lines may have zero, one, two, or three points of intersection. Support your answer with a sketch.



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