

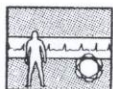
- b. Compute the value of the tangent of this small angle in one of the right triangles by using the ratio of the lengths of the opposite and adjacent legs.
- c. When the value of the tangent of angle A is known, then the *inverse tangent* function (on your calculator) will give the value of angle A . Simply enter the value of $\tan A$ (the ratio) into your calculator, and press the *INV* key followed by the *TAN* key—the angle will be in the display. Do this for the small angle in your right triangle to find the value of the angle.
- d. Double the value you found above to find the angle that is referred to as *stellar parallax*. The distance represented in this exercise is the *closest* star to the sun, and involves a relatively large amount of stellar parallax. Astronomers use much, much smaller angles in actual practice.



AGRICULTURE AND AGRIBUSINESS

EXERCISE 9:

While repairing a fence, you are curious whether the fence's corner forms a 90° angle or not. Both sections of fence are straight and have poles spaced 8 feet apart. Describe a procedure that you could use to verify whether the fence lines are perpendicular or not, requiring only one measurement with a 50-foot tape measure. (**Hint:** In the field, you don't have a calculator, nor need one to do this.)

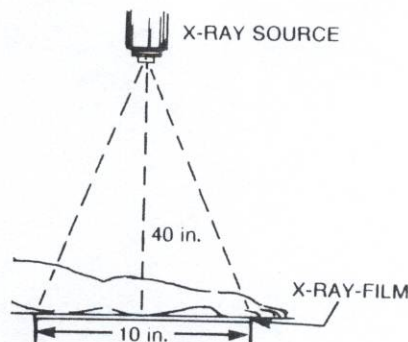


HEALTH OCCUPATIONS

EXERCISE 10:

An X-ray source is positioned over a piece of film, as shown here. The source is centered 40 inches away from a piece of film that is 10 inches wide.

- a. How far must the X rays travel to reach the edges of the film?



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