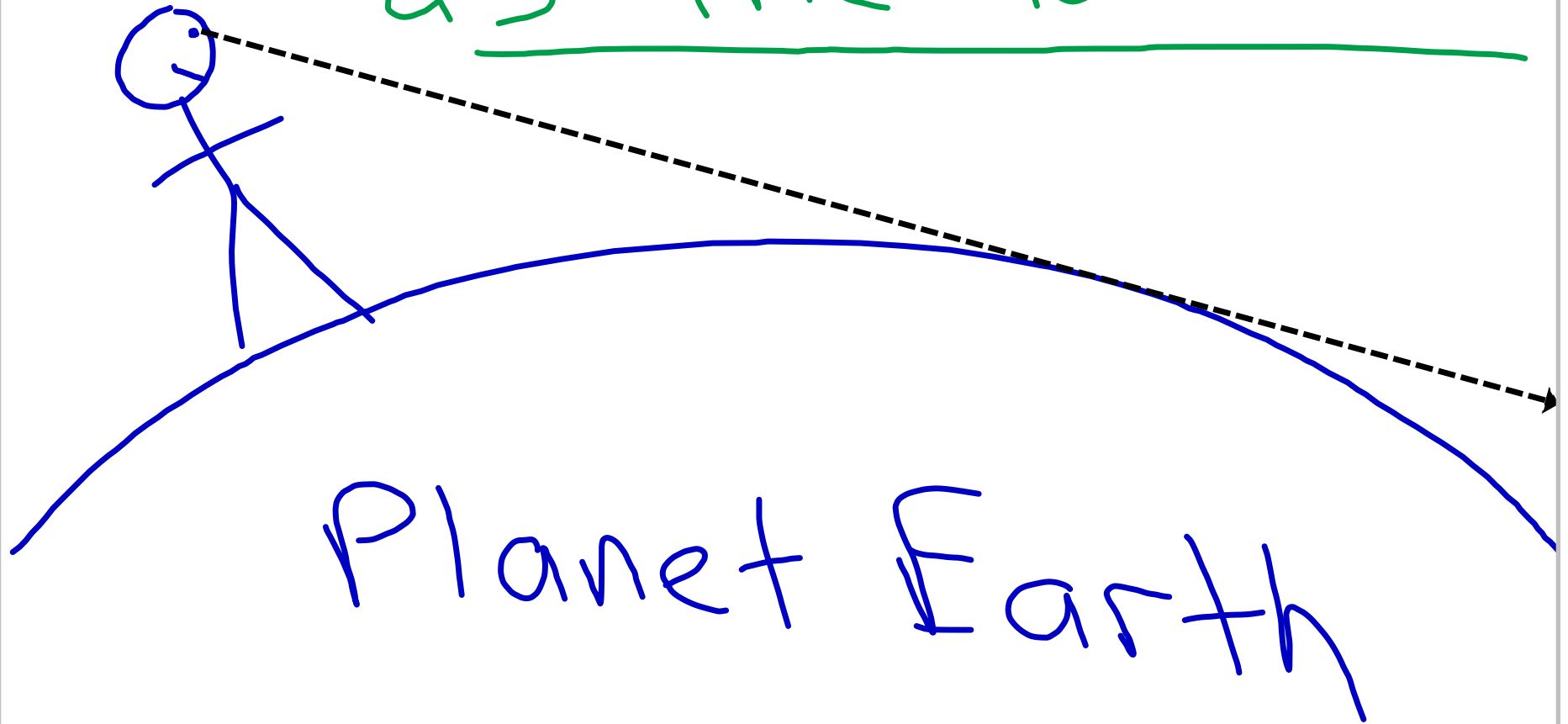
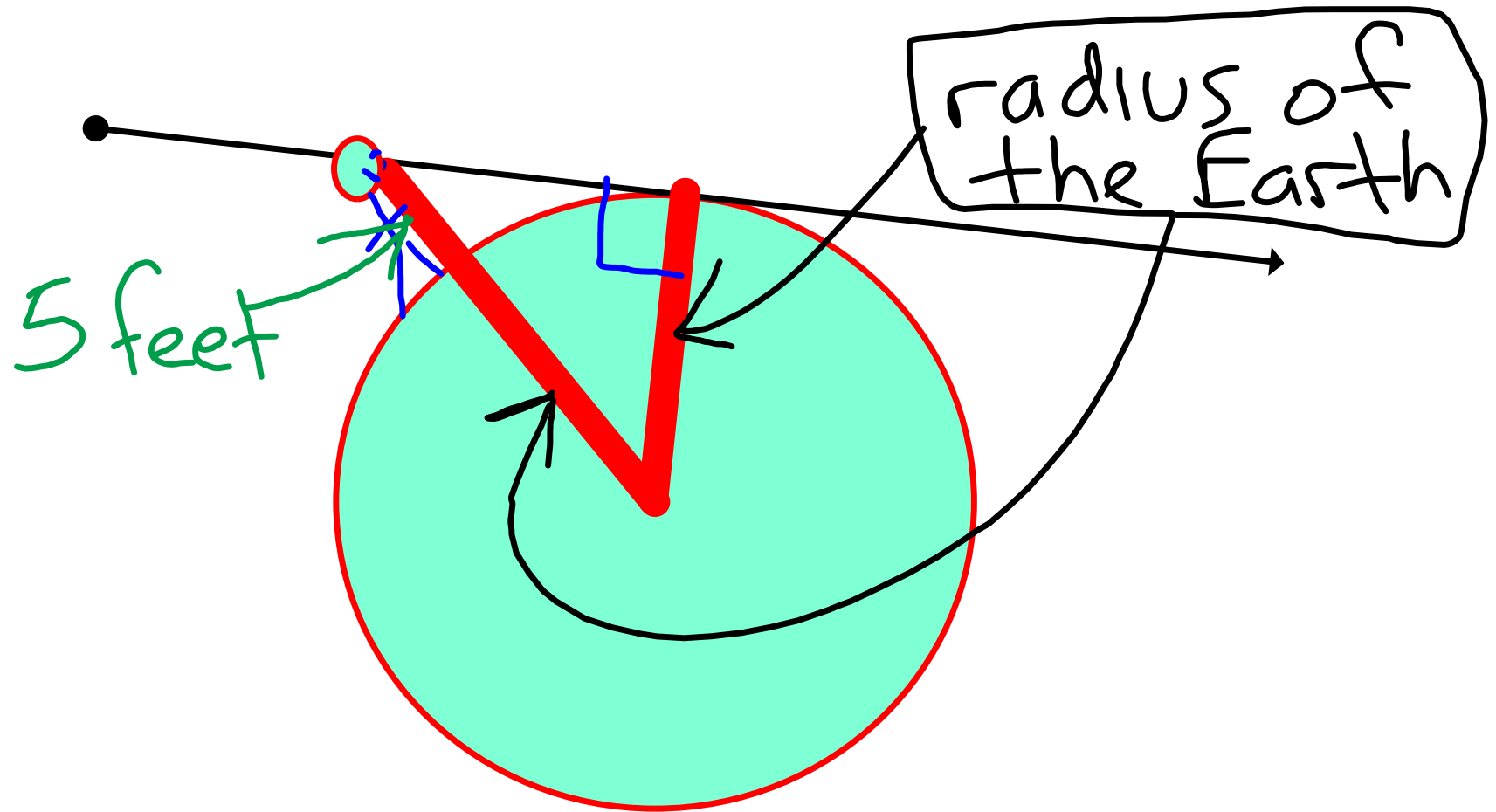


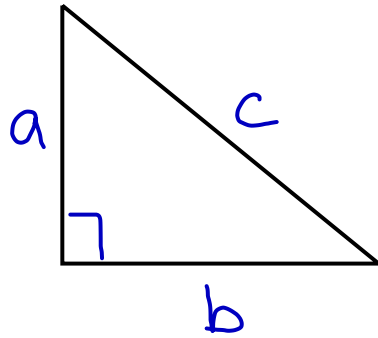
"I can see for
miles and miles and
miles and miles....."

*What is your
line of sight?

I can see as far
as the horizon





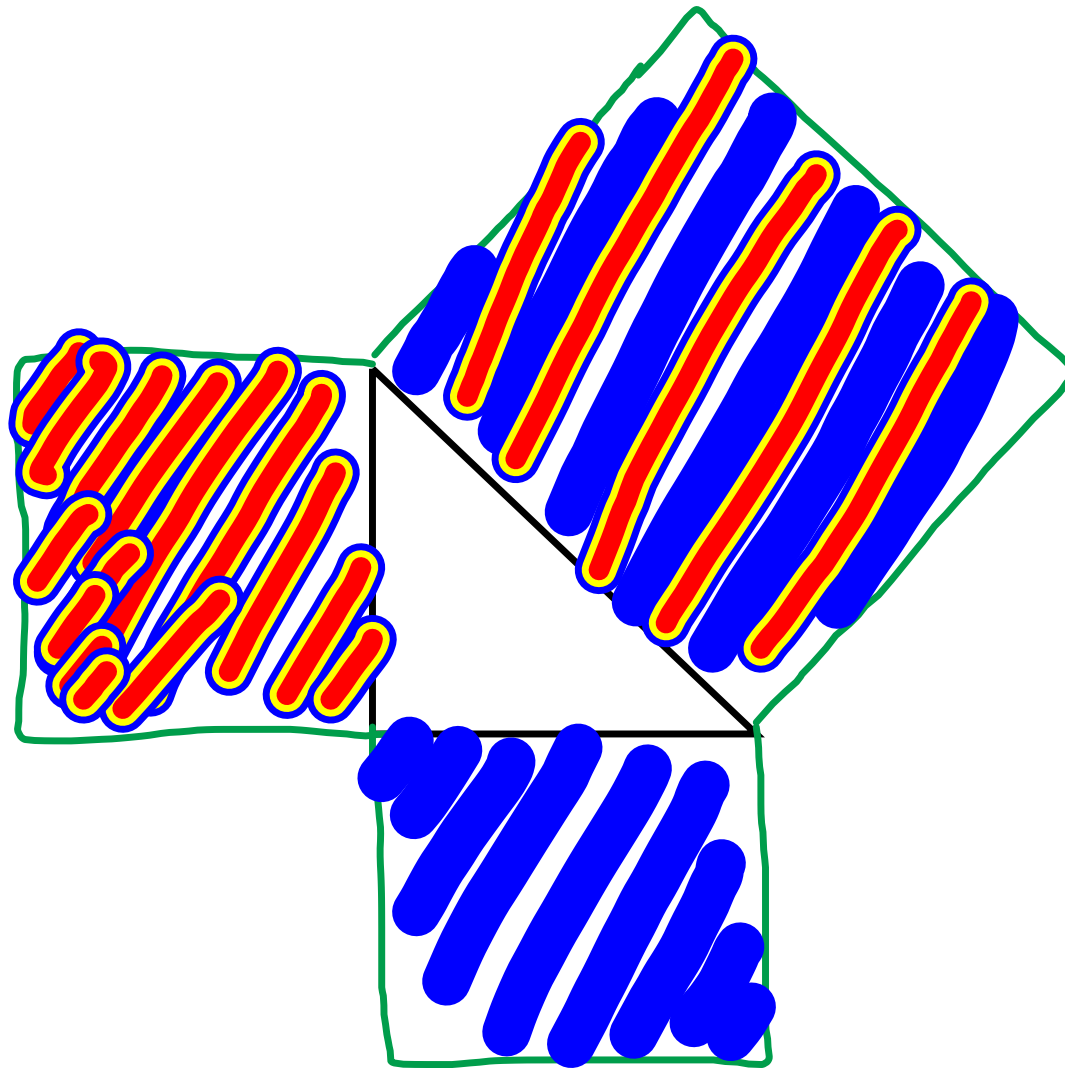


a and b are the legs
c is the hypotenuse.

Pythagorean Theorem

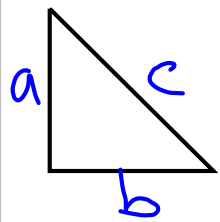
$$a^2 + b^2 = c^2$$

* the sum of the squares
of the legs equals
the square of the
hypotenuse.



Radius of Earth

4000 miles



$$a^2 + b^2 = c^2$$

* solve for one of the legs

$$a^2 + b^2 = c^2$$

$$a^2 - b^2 = c^2 - b^2$$

$$a^2 = c^2 - b^2$$

* square root of both sides

$$\sqrt{a^2} = \sqrt{c^2 - b^2}$$

$$a = \sqrt{c^2 - b^2}$$

Now apply to your Δ

$$a = \sqrt{c^2 - b^2}$$

$$a = \sqrt{\left(4000 + \frac{5}{5280}\right)^2 - (4000)^2}$$

$$a = 2.75 \text{ miles}$$

