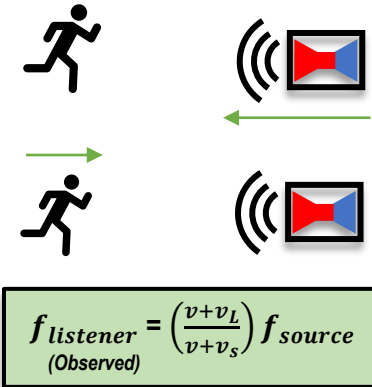


CONCEPT: DOPPLER EFFECT OF LIGHT

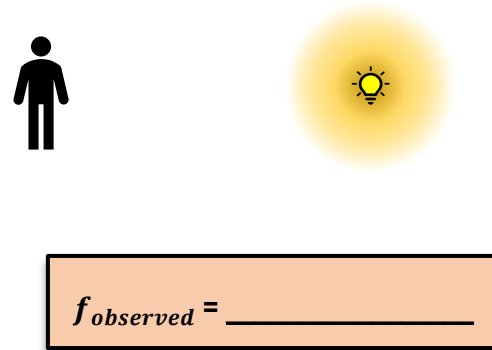
- Remember: Doppler Effect “shifts” frequency you **observe** based on _____ speed of source/observer.
 - Just as with sound, the Doppler Effect also occurs with E.M. Waves (light).

SOUND WAVES



- v_L & v_s , may have different values/signs

EM WAVES (LIGHT)



- Only need **relative** speed, always plugged in as a _____ number
 - + sign when observer & source getting [CLOSER | FARTHER]
 - sign when observer & source getting [CLOSER | FARTHER]

EXAMPLE: A distant star *should* theoretically radiate red light with a wavelength of 630nm. However, the star is measured to be receding from Earth at a speed of 3.0×10^6 m/s. What wavelength of light do we measure when looking at this star?