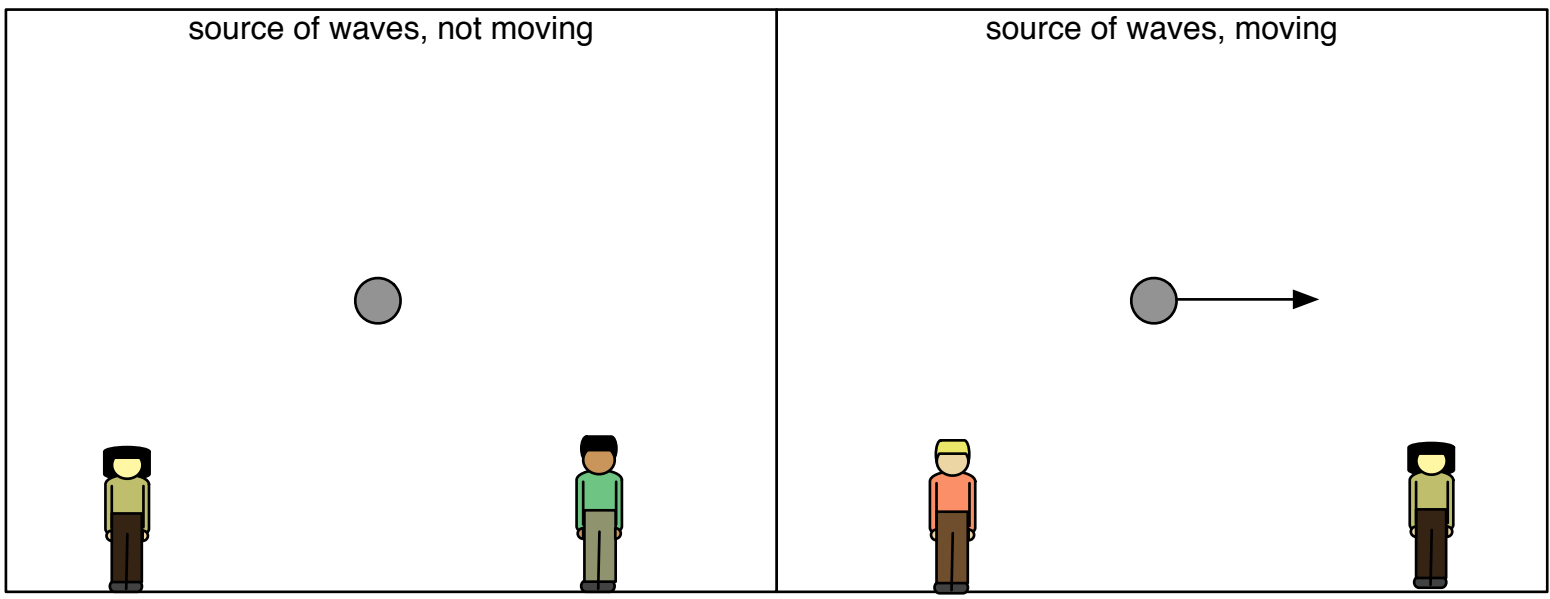
Wk33 Waves Intro

2: Doppler Effect & Sonic Booms

Name: _____

1. When does a source of sound have a higher pitch than normal?

2. When does a source of sound have a lower pitch than normal?



3. Draw in waves on the diagrams above.

4. For each person in the diagram say whether they hear the sound normally, or at higher pitch or a lower pitch.

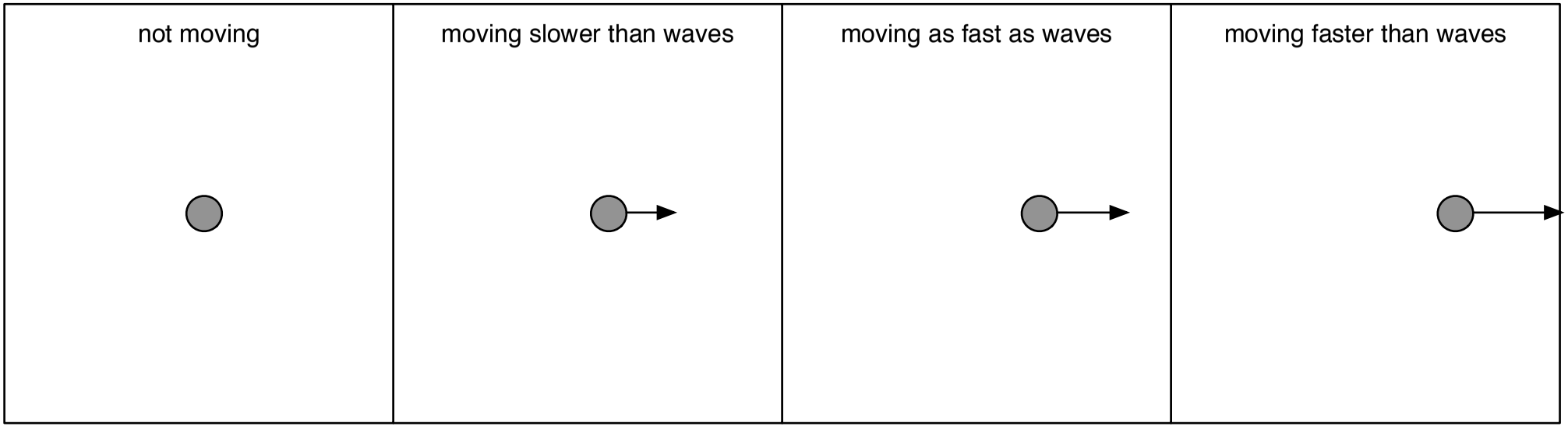
5. How do the police use this idea to track your speed with radar? What kind of waves do they use?

6. How do meteorologists use this idea to track storms? What kind of waves do they use?

7. How do astronomers use this idea to deduce that the universe is expanding? What kind of waves do they use?

8. What is a shock wave?

9. What are the two ways to get one?



1. In each diagram, sketch what the waves look like.

2. Label any shock waves.

3. **If possible**, draw one person in each diagram who has not heard the waves yet.

4. Below, sketch the old shape of airplanes, and the new shape.