

Solutions

Each answer shows the steps, then the **result**.

2.1

- the change in the frequency observed when a source and observer move relative to each other

2.2

- higher

2.3

- radar speed guns, sonar, or astronomical redshift (any one)

3.1 A

3.2 B

3.3

(a)

- the pitch is higher while the car approaches, then drops to a lower pitch as it recedes

(b)

- the Doppler effect