

- 27** The siren of a moving police car emits a sound wave with a frequency of 440 Hz. A stationary observer hears sound of frequency 494 Hz. The speed of sound in the air is 340 m s^{-1} .

What could be the speed and the direction of movement of the car?

- A** 37 m s^{-1} directly away from the observer
- B** 37 m s^{-1} directly towards the observer
- C** 42 m s^{-1} directly away from the observer
- D** 42 m s^{-1} directly towards the observer