

Answer key

Small group discussion

Note: For most questions, answers will vary.

1. What are some of the responsibilities of a law enforcement officer (sheriff or police officer)?

- **Enforce traffic laws**
- **Serve warrants / arrest criminals**
- **Assist families who need help**
- **Protect and serve the community**

2. Why is it necessary to pay people to protect us?

To maintain order.

3. A major focus for law enforcement officers is to keep the roads safe. List situations where someone might either receive a ticket or be taken to jail for traffic offenses.

- **Speeding**
- **Running red lights / stop signs**
- **Passing a stopped school bus**
- **Reckless driving / driving too fast for conditions**
- **DUI (driving under the influence)**

4. How does a law enforcement officer use math when dealing with traffic offenses?

- **Calculate speed**
- **Measure skid marks in accidents**

5. List some pros and cons for pursuing a career in law enforcement.

Pros:

- **Business always steady**
- **Pension**
- **College not required**
- **Earn the trust of the public**
- **Many different jobs within law enforcement system (street cop, CSI investigator, captain/chief of police, undercover work)**

Cons:

- **Relatively low pay**
- **Daily work includes risking your life**
- **Emotional stress on officers' families – they tend to worry**

Answer key

“To Serve and Protect”

Law enforcement officers can determine the speed of motorists by using radar or Vascar. When both an officer's and a motorist's car are moving, the officer must use math to calculate the motorist's speed.

1. Radar scenario #1: The officer's car is approaching an oncoming motorist who seems to be speeding in a 50 mph speed zone. The radar gun reads 120.46 mph (closing speed) and your squad car is going 55.5 mph (patrol speed). Use the formula below to determine how fast the motorist is traveling.

Closing speed – patrol speed = suspect speed

$$120.46 - 55.50 = 64.96 \text{ mph}$$

2. Radar scenario #2: The officer's car is traveling west and the motorist is traveling east. You believe that she is speeding in a 45 mph speed zone and use the radar gun to clock her speed. The reading shows 75.93 mph (separation speed) and your squad car is going 20.3 mph (patrol speed). Use the formula below to determine how fast the motorist is traveling.

Separation speed – patrol speed = suspect speed

$$75.93 - 20.30 = 55.63 \text{ mph}$$

3. Vascar scenario #1: Using a Vascar computer, a trooper recorded 1000 feet as the distance between two reference points. He also used Vascar to time the travel of a target vehicle between the two reference points. If the vehicle took 18 seconds to travel from one reference point to the other, and if the posted speed limit was 60 mph, was the person speeding?

Distance \div time = suspect speed

$$100 \div 18 = 55.5 \text{ feet per second}$$

$$\text{Convert } 55.5 \text{ fps to mph} = 37.88 \text{ mph}$$

37.88 < 60 mph, so the motorist was not speeding.

4. Officer serves an execution: A local resident was arrested for writing bad checks. He posted bond for \$15,000 but failed to appear in court. The bond company notified the sheriff's department and they were authorized to serve an execution, which allows them to collect the value of the bond in cash or property from the resident. The bond company has agreed to settle for 87.5% of the bond. What is the value of cash/property that the sheriff's department hopes to recover?

$$15,000 \times .875 = \$13,125$$