

**SMART EXAM RESOURCES**  
**9702 PHYSICS TOPIC QUESTIONS**  
**TOPIC: PHYSICAL QUANTITIES AND UNITS**  
**SUB-TOPIC: ERRORS AND UNCERTAINTIES**  
**SUB-SUB-TOPIC: ADVANTAGES OF SYSTEMATIC AND**  
**RANDOM OF ERRORS**

1

The volume of fuel in the tank of a car is monitored using a meter as illustrated in Fig. 1.1.

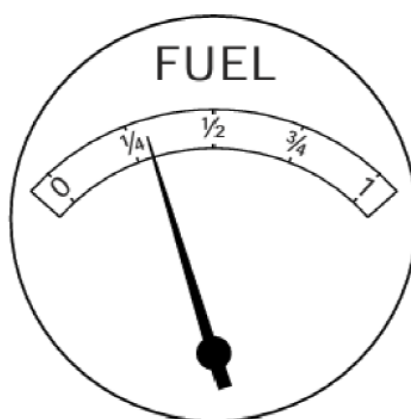


Fig. 1.1

- There is a systematic error in the meter.

Suggest why, for this meter, it is an advantage to have this systematic error.

.....  
 ..... [1]

**Mark Scheme:**

(meter shows zero fuel when there is some left in the tank so)  
acts as a 'reserve' ..... B1 [1]