

## Specimen P1 Q12

12. The voltage,  $V(t)$ , produced by a generator is described by the function  $V(t) = 120\sin 100\pi t$ ,  $t > 0$ , where  $t$  is the time in seconds.
- (a) Determine the period of  $V(t)$ .
- (b) Find the first three times for which  $V(t) = -60$ .

## Answers

(a)  $\frac{1}{50}$  or 0.02

(b)  $\frac{7}{600}, \frac{11}{600}, \frac{19}{600}$