

11. (a) Evaluate  $\int_{\frac{\pi}{2}}^{\pi} (5 \sin x - 3 \cos x) dx$ .

3

The diagram in your answer booklet shows the graphs with equations  $y = 5 \sin x$  and  $y = 3 \cos x$ ,  $0 \leq x \leq 2\pi$ .

(b) On the diagram in your answer booklet, shade the area represented by the integral in (a).

1