(a) The integral \( \int \arcsin(x) \, dx \) can be integrated by parts.

\[ \text{True} \quad \text{False} \]

(b) The graph of the equation \( r = \theta \) is a straight line.

\[ \text{True} \quad \text{False} \]

(c) The integral

\[ \int_0^{\pi/2} \frac{1}{2} (5 \sin 2\theta^2) \, d\theta, \]

represents the area enclosed by one petal of the rose curve \( r = 5 \sin 2\theta \).

\[ \text{True} \quad \text{False} \]

(d) The area of a circular oil spill grows at a rate of \( r(t) \) square miles per hour, where \( t \) is measured in hours. Then \( \int_0^3 r(t) \, dt \) gives the total change (in miles) in the radius of the spill during the first three hours after it occurred.

\[ \text{True} \quad \text{False} \]

(e) The integral \( \int_0^r \pi (r^2 - y^2) \, dy \) represents the total volume of a sphere of radius \( r \).

\[ \text{True} \quad \text{False} \]