## Euler Circuits and Paths Review

Answer the questions below.


Figure 1


Figure 2


Figure 3


Figure 4

1. Each of the figures above has the same vertex set. [A] True [B] False
2. What is the edge set for the graph in Figure 1?
[A] $\{\mathrm{AB}, \mathrm{AD}, \mathrm{BD}, \mathrm{CD}, \mathrm{CE}, \mathrm{DE}\}$
[B] $\{\mathrm{AB}, \mathrm{AE}, \mathrm{BC}, \mathrm{CE}, \mathrm{DE}\}$
$[\mathrm{C}]\{\mathrm{AB}, \mathrm{AD}, \mathrm{BC}, \mathrm{CD}, \mathrm{DE}\}$
[D] none of these
3. What is the edge set for the graph in Figure 3?
[A] $\{\mathrm{AB}, \mathrm{AD}, \mathrm{BD}, \mathrm{CD}, \mathrm{CE}, \mathrm{DE}\}$
[B] $\{\mathrm{AB}, \mathrm{AE}, \mathrm{BC}, \mathrm{CE}, \mathrm{DE}\}$
$[\mathrm{C}]\{\mathrm{AB}, \mathrm{AD}, \mathrm{BC}, \mathrm{CD}, \mathrm{DE}\}$
[D] none of these
4. Which figures represent the same graph?
[A] Figures 1 and 2
[B] Figures 1 and 3
[C] Figures 3 and 4
[D] All of the graphs are the same
[E] None of the graphs are the same
5. Which of the graphs has an Euler Path?
[A] Figures 1 and 2
[B] Figures 3 and 4
[C] Figure 4 only
[D] Figures 1, 2 and 3
[E] None of the graphs have an Euler Path
6. Which of the graphs has on Euler Circuit?
[A] Figures 1 and 2
[B] Figures 3 and 4
[C] Figure 4 only
[D] Figures 1, 2 and 3
[E] None of the graphs have an Euler Circuit
