AL6

Find the edge normal and the edge direction.

let's consider these points as vertices of a triangle in a 2D space,so

(0, 255)

(255, 0)

(0, 0)

In this case, the edges of the triangle are:

Edge 1: From (0, 255) to (255, 0)

Edge 2: From (255, 0) to (0, 0)

Edge 3: From (0, 0) to (0, 255)

Next, let's find the direction vectors of each edge:

(a vector (a,b) has a normal $(b,-a)$ or $(-b,a)$.)

Edge 1 direction vector: $(255-0, 0-255) = (255, -255)$

Edge 2 direction vector: $(0-255, 0-0) = (-255, 0)$

Edge 3 direction vector: $(0-0, 255-0) = (0, 255)$

SO,

Edge 1 (from (0, 255) to (255, 0)):

- Direction: (255,−255)(255, -255)(255,−255)
- Normal: (255,255)(255, 255)(255,255) or (−255,−255)(-255, -255)(−255,−255)

Edge 2 (from (255, 0) to (0, 0)):

- Direction: (−255,0)(-255, 0)(−255,0)
- Normal: (0,−255)(0, -255)(0,−255) or (0,255)(0, 255)(0,255)

Edge 3 (from (0, 0) to (0, 255)):

- Direction: (0,255)(0, 255)(0,255)
- Normal: (255,0)(255, 0)(255,0) or (−255,0)(-255, 0)(−255,0)