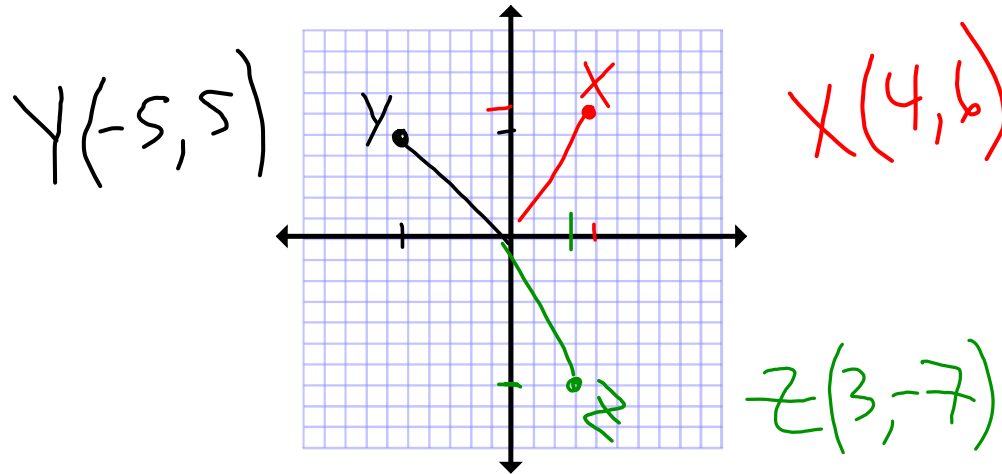


pg151 #3

to answer the question you need to calculate the distance between each point and the origin then, whichever point has the shortest distance is the point that is closest to the origin



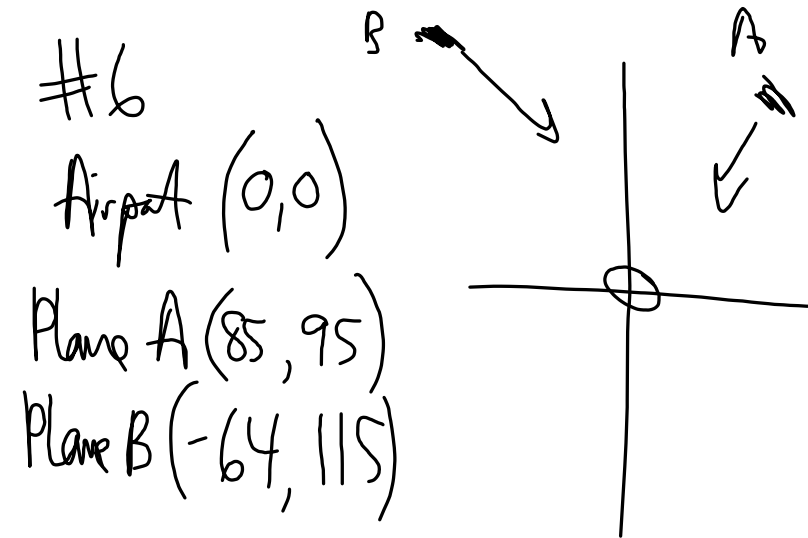
$$X(4,6)$$
$$d = \sqrt{4^2 + 6^2}$$
$$d = \sqrt{16 + 36}$$
$$d_x = \sqrt{52}$$

$$Y(-5,5)$$
$$d = \sqrt{x^2 + y^2}$$
$$d_y = \sqrt{(-5)^2 + 5^2}$$
$$d_y = \sqrt{25 + 25}$$
$$d_y = \sqrt{50}$$

$$Z(3,-7)$$
$$d_z = \sqrt{9 + 49}$$
$$d_z = \sqrt{58}$$

↑  
radical

Point Y is the closest to the origin. It has the shortest distance.



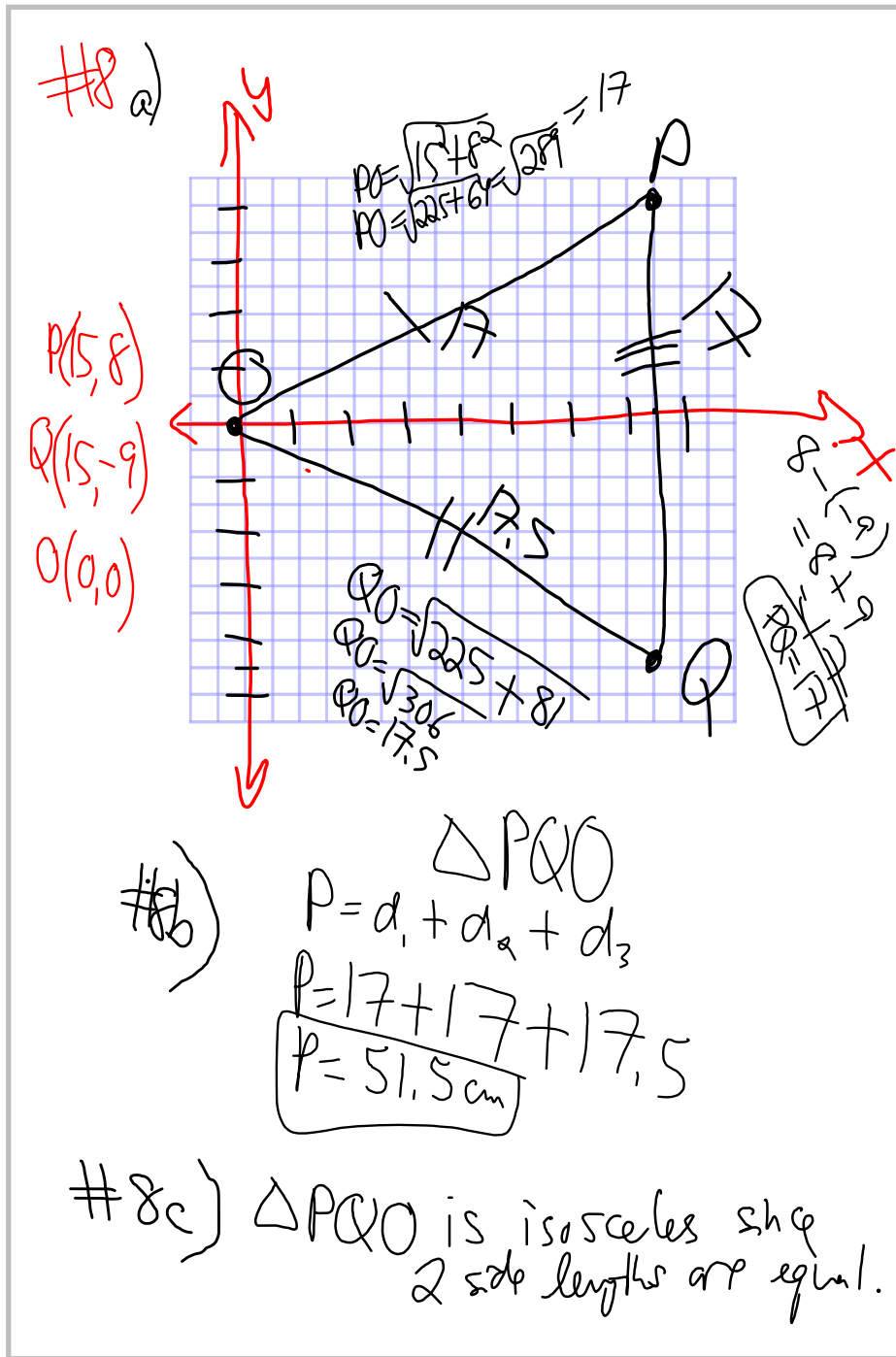
$$d_A = \sqrt{7225 + 9025}$$

$$d_A = \sqrt{16250} = \underline{127.5 \text{ km}}$$

$$d_B = \sqrt{(-64)^2 + 115^2} = \sqrt{17321}$$

$$\underline{d_B = 131.6 \text{ km}}$$

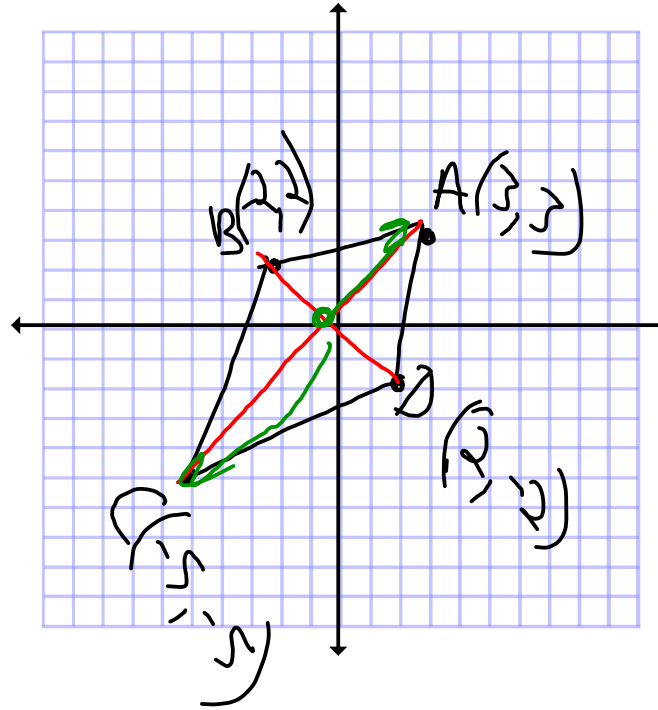
Plane A should land first. It is closer to the airport.



#11)

a)

b)



c) to find AC  
 $AC = d_A + d_C$

d)  $BD = d_B + d_D$