

Solutions

2.1 Midpoint x-coordinate = $(0+6)/2=3$.

2.2 The right triangle has hypotenuse 5 and horizontal leg 3: $h^2=5^2-3^2=16$, so the positive height is 4.

2.3 Distance = $\sqrt{3^2+4^2}=5$.

3.1 False. $A=(-1,0)$, $B=(1,0)$: all points $(0,y)$ are equally distant from A and B, forming the perpendicular bisector of AB. Two points alone do not specify the vertex and two arms of an angle bisector.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.