

Solutions

2.1 $\sqrt{3^2+4^2}=5$.

2.2 The negative reciprocal of $4/3$ is $-3/4$.

2.3 Set $y=0$, then divide 25 by 3.

3.1 False. On $x^2+y^2=25$ at $(3,4)$, the radius gradient is $4/3$ and the tangent gradient is $-3/4$. The radius and tangent are perpendicular.

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