

Intersecting Tangents of Parabola Merit Grid

Name: _____

Class: _____

Constructed file on Nspire	0 = not done 2 = completed	
Evidence of having gathered data from construction	0 = not done 1 = listed one or two results 2 = listed several results	
Evidence of conjecturing coordinates of tangent intersection point	0 = not done 1 = conjecture for one coordinate 2 = conjecture for both coordinates	
Proof that conjecture is correct	0 = not done 1 = algebraically verified for a specific numerical case of two tangents 2 = algebraically verified for a general case of two tangents	
Next Steps - start	0 = not done 1 = gathered data about chosen situation 2 = conjectured result from chosen situation	
Next Steps - proof	0 = not done 1 = algebraically verified for a specific numerical case of two tangents 2 = algebraically verified for a general case of two tangents	
Next Steps – generalising beyond just a numerically different situation. Eg considering $f(x)=nx^2$	0 = not done 1 = made conjecture about general situation 2 = algebraically proved conjecture about general situation	
Further Steps	0 = no further explorations made 1 = evidence of consideration of another ‘next steps’ extension 2 = substantial work invested in exploring another extension	
Reliability and Independence	0 = work handed in late and/or not in official answer booklet 1 = submitted work involved some degree of liaison with other students or teacher. 2 = submitted work entirely from own efforts	

Comments on Performance with Task:

Total: _____/18