Practice Vector Addition "Quiz". NOT TO BE HANDED IN.

REAL QUIZ, just like this, on MONDAY.

$\vec{F}_1 = 50\ N,\ 29°$

$\vec{F}_2 = 80\ N,\ 140°$

$\vec{F}_1 =$ ___ N cos ___° $\hat{i}$ + ___ N sin ___° $\hat{j}$

$\vec{F}_2 =$ ___ N cos ___° $\hat{i}$ + ___ N sin ___° $\hat{j}$

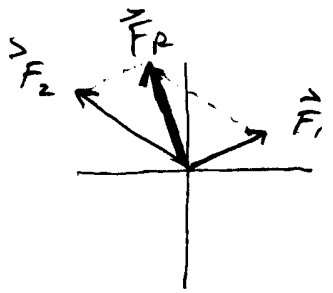
$\vec{F}_R =$ ___ N $\hat{i}$ + ___ N $\hat{j}$

$|\vec{F}_R| = \sqrt{(F_R\hat{i})^2 + (F_R\hat{j})^2}$

$= \sqrt{(\quad)^2 + (\quad)^2}$

$F_R =$ _____ N

LOCATED IN QUAD ___



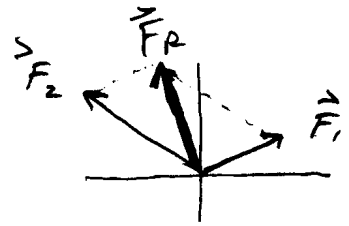
$\theta = \tan^{-1}\left(\frac{F_R\hat{j}}{F_R\hat{i}}\right)$

$\theta = \tan^{-1}(\quad)$

$\theta =$ ___° but θ_R Need ___ degrees added to if because it is in the ___ QUADRANT.

∴ $\boxed{\vec{F}_R =$ ___ N, ___°$}$

answers on back!



50 29 50 29

80 140 80 140

−17.55 +75,66

2

17.55 75.66

↖ you can skip the sign here.

−+	++
−−	+−

77,67

75.66
−17.55 ← keep − sign

−76.9 180

2nd

77.7 103

180	0
180	360

Keep 3 S.F. in answer.