**Vector additions**

**(tangent and the law of Cosine and Sine)**

**II**

1. **If a car was traveling 33.5 m/s at 180 degrees collided with another car traveling 65 m/s at 90 degrees, what would the resultant be?**
2. **If an air plane was traveling 350 mph at 45 degrees collided with a wind traveling 55 mph at 125 degrees, what is the resultant?**
3. **If two students were walking in the hall, one was going 1.5 m/s at 50 degrees and the other 3.0 m/s at 190 degrees, what would the resultant be?**
4. **If someone riding a bicycle 20 mph at 30 degrees collided with a car traveling 60 mph at 90 degrees, what is the resultant? R = 32.2 m/s @ 46.1**
5. **If a person was pulling on a rope with a force of 25 N at 0 degrees and another was pulling 55 N at 270 degrees, what is the resultant?**
6. **If a football player was running down the field 9.7 mph at 25 degrees and another collided with him running 11.5 mph at 100 degrees, what is the resultant?**
7. **If a car was traveling 25 mph at 95 degrees collided with another car traveling 57 mph at 280 degrees, what is the resultant?**