

Name _____

Pre-Calculus

Vector Practice

Part I: Find the magnitude and directional angle of each standard vector (standard means beginning at the origin).

1. $3i + 4j$

2. $-2i + 6j$

3. $-8i - 15j$

4. $2i - 10j$

Part II – Answer the following

5. Airplane has a speed of 600 mph and a bearing of 30 degrees. The wind is blowing due east at a speed of 32 mph. Find the resultant speed and directional angle of the plane.

6. A football is thrown 15 degrees west of north at a length of 45 yards. The wind is blowing 25 degrees east of south at an adjusted force of 8 yards. Find the resultant length of the throw and its directional angle