

Name: _____

MA 3330: Quiz § 2.4 to V 2.5

1. 2.4: 183, 187, 211 , 219

2. Prove

$$\|\mathbf{v} + \mathbf{w}\|^2 = \|\mathbf{v}\|^2 + \|\mathbf{w}\|^2 + 2\mathbf{v} \cdot \mathbf{w}$$

3. Prove

$$\|\mathbf{v}\|^2\|\mathbf{w}\|^2 = (\mathbf{v} \cdot \mathbf{w})^2 + \|\mathbf{v} \times \mathbf{w}\|^2$$

4. 2.5: 243a,b,d, 247, 251, 254, 259, 261, 263, 267, 271, 276, 279, 291, 292