University of Phoenix Material

Week One Proof Problem

A

B

C

E

D

 Given: $m∠ABC=m∠EBD$

 Prove: $m∠ABE=m∠DBC$

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| **Statements** | **Reasons** |
| 1.  | 1. Given |
| 2. $m∠CBE=m∠CBE$ | 2.  |
| 3. $m∠ABC+m∠CBE=m∠EBD+m∠CBE$ | 3.  |
| 4.  | 4. Angle Addition Postulate |
| 5.  | 5. Angle Addition Postulate |
| 6. $m∠ABE=m∠DBC$ | 6.  |