



Since AB is parallel to CD, we have the relationships:  $\angle 1+\angle BEF = 180^{\circ}$ ,  $\angle 1 = 50^{\circ}$ ,  $\angle BEF = 130^{\circ}$ . Also, since EG bisects  $\angle BEF$ , we have  $\angle BEG =$  $1/2 \angle BEF = 65^{\circ}$ . Therefore,  $\angle 2 =$  $\angle BEG = 65^{\circ}$ . Thus, the answer is C

Since AB is parallel to CD and EF is a



transversal, the alternate interior angles are equal. Thus, ∠BEF=∠EFG=50°. EG bisects \( \text{BEF}, \) which means \( \text{BEF}= \) ∠GEF=25°. Because ∠EFG and ∠EGF are supplementary (they form a linear pair along EG), ∠EGF=50°-25°=25°. Finally,  $\angle 2 = \angle GEF + \angle EGF = 50^{\circ}$ . Thus,

the answer is A

**Question:** 

As shown in the figure, AB parallel CD, straight line EF intersects AB at point E, intersects CD at point F, EG bisects angle BEF, and it intersects CD at point G, angle 1 = 50.0, then angle 2 is equal to?

## **Choices:**

B: 60° C: 65° A:  $50^{\circ}$