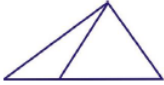

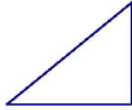



5.4 The Ambiguous Case

TABLE 5.1:

| $a >, =, \text{ or } < b \sin A$ | Diagram | Number of solutions |
|----------------------------------|---|---------------------|
| a. $26 > 19.9$ |  | 2 |
| b. $16 < 17.5$ |  | 0 |
| c. $13.48 = 13.48$ |  | 1 |
| d. $3.4 > 3.3$ |  | 2 |

2. Answers:

- $\frac{\sin 32.5^\circ}{26} = \frac{\sin B}{37} \rightarrow B = 49.9^\circ \text{ or } 180^\circ - 49.9^\circ = 130.1^\circ$
- no solution
- $\frac{\sin 47.8^\circ}{13.48} = \frac{\sin B}{18.2} \rightarrow B = 90^\circ$
- $\frac{\sin 51.5^\circ}{3.4} = \frac{\sin B}{4.2} \rightarrow B = 75.2^\circ \text{ or } 180^\circ - 75.2^\circ = 104.8^\circ$