

**SM3 7.3A answers**

1. no triangle possible

$$\begin{aligned}2. m\angle A_1 &= \underline{41.2^\circ} & a_1 &= \underline{8.1} \\ m\angle B_1 &= \underline{59.5^\circ} & b_1 &= \underline{10.6} \\ m\angle C_1 &= \underline{79.3^\circ} & c_1 &= \underline{12.1}\end{aligned}$$

$$\begin{aligned}m\angle A_2 &= \underline{41.2^\circ} & a_2 &= \underline{8.1} \\ m\angle B_2 &= \underline{120.5^\circ} & b_2 &= \underline{10.6} \\ m\angle C_2 &= \underline{18.3^\circ} & c_2 &= \underline{3.9}\end{aligned}$$

$$\begin{aligned}3. m\angle A_1 &= \underline{26.3^\circ} & a_1 &= \underline{10.3} \\ m\angle B_1 &= \underline{138.1^\circ} & b_1 &= \underline{15.6} \\ m\angle C_1 &= \underline{15.6^\circ} & c_1 &= \underline{6.3}\end{aligned}$$

$$\begin{aligned}m\angle A_2 &= \underline{NA} & a_2 &= \underline{NA} \\ m\angle B_2 &= \underline{NA} & b_2 &= \underline{NA} \\ m\angle C_2 &= \underline{NA} & c_2 &= \underline{NA}\end{aligned}$$

4. no triangle possible

$$\begin{aligned}5. m\angle A_1 &= \underline{45.1^\circ} & a_1 &= \underline{37.5} \\ m\angle B_1 &= \underline{32.7^\circ} & b_1 &= \underline{28.6} \\ m\angle C_1 &= \underline{102.2^\circ} & c_1 &= \underline{51.7}\end{aligned}$$

$$\begin{aligned}m\angle A_2 &= \underline{134.9^\circ} & a_2 &= \underline{37.5} \\ m\angle B_2 &= \underline{32.7^\circ} & b_2 &= \underline{28.6} \\ m\angle C_2 &= \underline{12.4^\circ} & c_2 &= \underline{11.4}\end{aligned}$$

$$\begin{aligned}6. m\angle A_1 &= \underline{25.4^\circ} & a_1 &= \underline{5.4} \\ m\angle B_1 &= \underline{55.0^\circ} & b_1 &= \underline{10.3} \\ m\angle C_1 &= \underline{99.6^\circ} & c_1 &= \underline{12.4}\end{aligned}$$

$$\begin{aligned}m\angle A_2 &= \underline{NA} & a_2 &= \underline{NA} \\ m\angle B_2 &= \underline{NA} & b_2 &= \underline{NA} \\ m\angle C_2 &= \underline{NA} & c_2 &= \underline{NA}\end{aligned}$$