

Solve each triangle. Side lengths rounded to the tenths, angles to the nearest degree.

1. $\triangle ABE : A = 100^\circ, B = 50^\circ, a = 14m$

2. $\triangle FGH : f = 4cm, g = 5cm, h = 6cm$

3. $\triangle PRW : P = 120^\circ, r = 34cm, w = 28cm$

4. $\triangle DEF : D = 20^\circ, d = 5m, f = 8m$

5. $\triangle ABC : A = 30^\circ, a = 10cm, b = 20cm$

6. $\triangle XYZ : x = 40m, y = 28m, z = 34m$

7. $\triangle PQR : P = 45^\circ, p = 17cm, q = 25cm$

8. $\triangle CDP : C = 39^\circ, D = 78^\circ, d = 15cm$

9. $\triangle MNP : N = 78^\circ, n = 32m, p = 32m$

10. $\triangle BCD : B = 65^\circ, b = 28cm, d = 30cm$

KEY

$$E = 30^0$$

1. $b = 10.9m$

$$e = 7.1m$$

$$F = 41^0$$

2. $G = 56^0$

$$H = 83^0$$

$$p = 53.8cm$$

3. $R = 33^0$

$$W = 27^0$$

4. $F = 33^\circ$ or $F = 147^\circ$

$$E = 127^\circ \quad E = 13^\circ$$

$$e = 11.7m \quad e = 3.3m$$

5. $B = 90^\circ$

$$C = 60^\circ$$

$$c = 17.3 \text{ cm}$$

$$X = 80^0$$

6. $Y = 44^0$

$$Z = 56^0$$

7. No such triangle

$$P = 63^0$$

8. $c = 9.7cm$

$$p = 13.7cm$$

$$P = 78^0$$

9. $M = 24^0$

$$m = 13.3m$$

10. $D = 76^\circ$ or $D = 104^\circ$

$$C = 39^\circ \quad C = 11^\circ$$

$$c = 19.4 \text{ cm} \quad c = 5.9 \text{ cm}$$