

Lines and angles Ex 14.2 Q23

Answer:

$$\angle BDE = \angle ABD = 32^{\circ}$$
 (Alternate interior angles)
⇒ $\angle BDE + y = 180^{\circ}$ (Linear pair)
⇒ $32^{\circ} + y = 180^{\circ}$
⇒ $y = 180^{\circ} - 32^{\circ} = 148^{\circ}$
 $\angle ABE = \angle E = 122^{\circ}$ (Alternate interior angle)
 $\angle ABD + \angle DBE = 122^{\circ}$

 $32^{\circ} + x = 122^{\circ}$

 $x = 122^{\circ} - 32^{\circ} = 90^{\circ}$

Lines and angles Ex 14.2 Q24

Answer:

$$\angle$$
ABC = \angle ECD = 55° (Corresponding angles)
 \angle BAC = \angle ACE = 65° (Alternate interior angles)
Now, \angle ACD = \angle ACE + \angle ECD
 \Rightarrow \angle ACD = 55° + 65° = 120°

Lines and angles Ex 14.2 Q25

Answer:

Since CA _ AB, $\therefore \angle x = 90^{\circ}$

We know that the sum of all the angles of triangle is 180°.

In
$$\triangle$$
 APQ,
 \angle QAP + \angle APQ + \angle PQA = 180°
 \Rightarrow 90° + \angle APQ + 20° = 180°
 \Rightarrow 110° + \angle APQ = 180°
 \Rightarrow \angle APQ = 180° - 110° = 70°
 \angle PBC = \angle APQ = 70° (Corresponding angles)
Since \angle PRC + \angle z = 180° (Linear pair)
 \therefore \angle z = 180° - 70° = 110° [\angle APQ = \angle PRC (Alternate interior angles)]

******* END ******