

same for both forms.

II 1. D

?? → 3. E

4. Free

6. B

5. B

① $110^\circ + 360^\circ = 470^\circ$

④ —

③ $180^\circ - 30^\circ = 150^\circ$

⑤ $360k + \theta$

⑥ $7x + 15 + x + 5 + 10x - 20 = 180$

$\Rightarrow 18x = 180$

$\Rightarrow x = 10$

so $\angle B = x + 5 = 10 + 5 = 15^\circ$

Form #1.

III

⑦



$\Rightarrow \alpha = 180^\circ - 35^\circ$ (supplementary)
 $= \boxed{145^\circ}$

⑧ note that $\angle a = \angle c = \angle e = (4x - 30)^\circ$

and $\angle b = (x + 10)^\circ = \angle f$

and $\angle a + \angle b = 180^\circ \Rightarrow 4x - 30 + x + 10 = 180$

$\Rightarrow 5x - 20 = 180$

$\Rightarrow x = 40$

so $\angle a = \angle e = (4x - 30)^\circ = (4(40) - 30)^\circ = \boxed{130^\circ}$

so $\angle c = \boxed{130^\circ}$

and $\angle f = (x + 10)^\circ = 40 + 10 = \boxed{50^\circ}$

⑨ note $\angle a + \angle b = \angle c$

$\Rightarrow 3x + 70 = 10x$

$\Rightarrow x = 10$

so $\angle a = 3(10) = \boxed{30^\circ}$

$\angle b = \boxed{70^\circ}$

⑩ Note the similar triangles

$\triangle ADB \sim \triangle EDC$

$\Rightarrow \frac{DC}{DB} = \frac{EC}{AB}$

$\Rightarrow \frac{16}{28} = \frac{x}{35}$

$\Rightarrow 28x = (16)(35)$

$\Rightarrow x = 20$

so
 $\boxed{EC = 20}$