

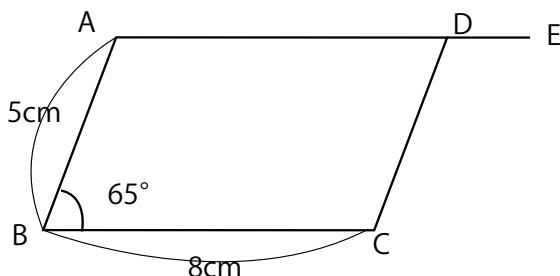
平行四辺形の性質 長さ、角度 I

学習日：

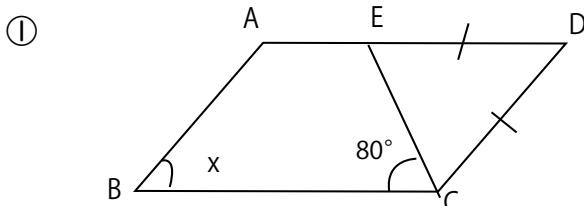
点

- 1 右の平行四辺形ABCDで次の長さや角の大きさを求めなさい。

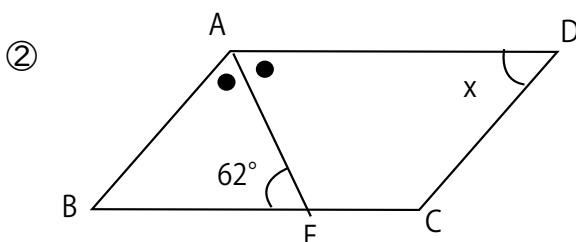
① 辺AD

② $\angle D$ ③ $\angle CDE$ 

- 2 次の図で四角形ABCDが平行四辺形であるとき、 $\angle x$ の大きさを求めなさい。

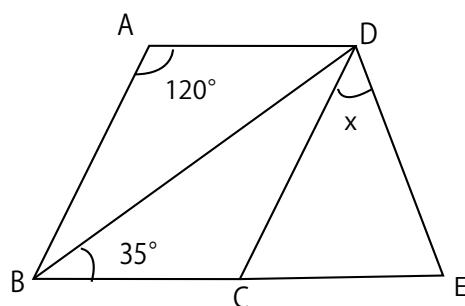


$$ED=CD$$



$$\angle BAE = \angle DAE$$

③



$$BD=BE$$

解答

1 ① 5 cm ② 65° ③ $180 - 65 = \underline{115^\circ}$

2 ① 錯角なので

$$\angle BCE = \angle DEC = 80^\circ$$

$\triangle CDE$ は二等辺三角形なので

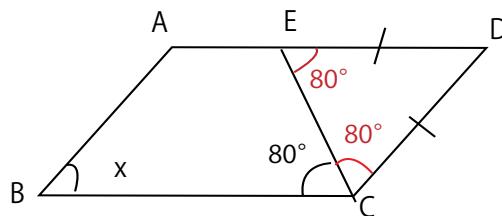
$$\angle DEC = \angle DCE = 80^\circ$$

よって

$\angle D$

$$180 - 2 \times 80 = 20^\circ$$

$$\angle D = \angle B \text{ なので } \angle x = \underline{20^\circ}$$



② 錯角なので

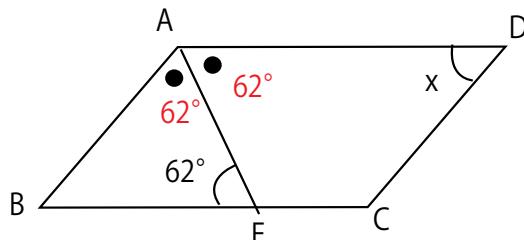
$$\angle AEB = \angle EAD = 62^\circ$$

$$\angle BEA = \angle BAE = 62^\circ$$

よって $\angle B$ は

$$180 - 2 \times 62 = 56^\circ$$

$$\angle B = \angle D \text{ なので } \angle x = \underline{56^\circ}$$



③ $\angle BDC = y$ とおく

$$\angle C = 120^\circ \text{ なので}$$

$$\begin{aligned} y &= 180 - (35 + 120) \\ &= 25^\circ. \end{aligned}$$

$\triangle BDE$ は二等辺三角形なので

$$\angle BDE = \angle BED = x + 25$$

$\angle BCD$ を外角とみると

$$x + 25 + x = 120$$

$$2x = 95$$

$$x = \underline{48^\circ}$$

