

## 絶対値

絶対値  $|a|$ : 数直線上で原点と点  $A(a)$  との距離

$$1 \quad |a| \geq 0$$

$$2 \quad a \geq 0 \text{ のとき, } |a| = (a) = a$$

$$a < 0 \text{ のとき, } |a| = -(a) = -a$$

## Example2

GeoGebra を使って、次のグラフを描きなさい。また、そのグラフの特徴を述べなさい。

$$(1) \quad y = |2x - 2|$$

$$(2) \quad y = |2x - 5|$$

## Example1

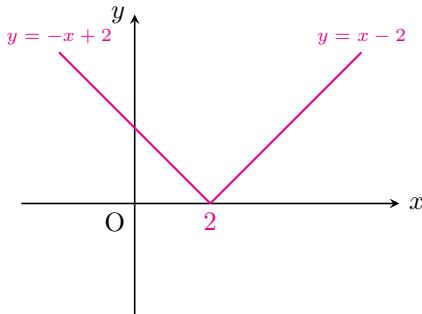
GeoGebra を使って、次のグラフを描きなさい。また、そのグラフの特徴を述べなさい。

$$(1) \quad y = |x - 2|$$

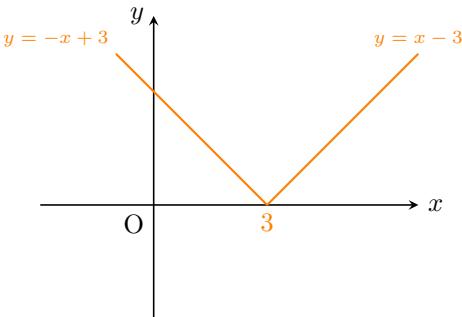
$$(2) \quad y = |x - 3|$$

$$(3) \quad y = |x - 4|$$

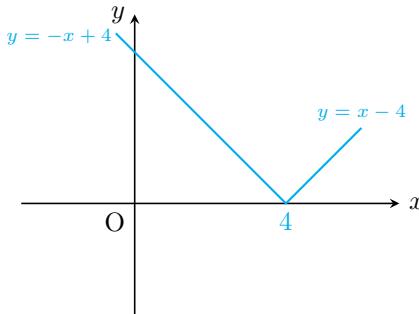
$$(1) \quad y = |x - 2|$$



$$(2) \quad y = |x - 3|$$



$$(3) \quad y = |x - 4|$$



## Exercise1

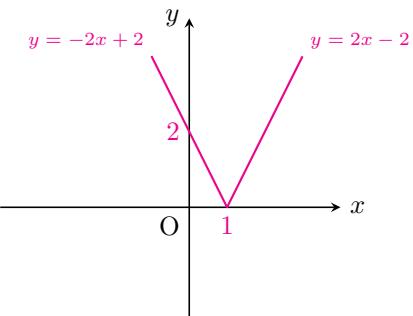
GeoGebra を使って、次のグラフを描きなさい。また、そのグラフの特徴を述べなさい。

$$(1) \quad y = |x + 1|$$

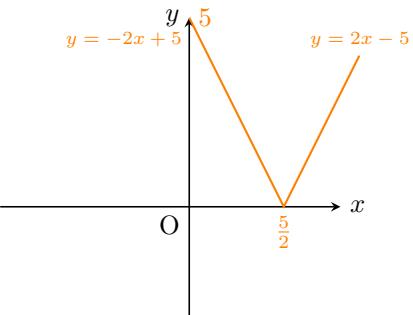
$$(2) \quad y = |x + 2|$$

$$(3) \quad y = |x + 3|$$

$$(1) \quad y = |2x - 2|$$



$$(2) \quad y = |2x - 5|$$



## Exercise2

GeoGebra を使って、次のグラフを描きなさい。また、そのグラフの特徴を述べなさい。

$$(1) \quad y = |2x + 3|$$

$$(2) \quad y = |3x + 6|$$

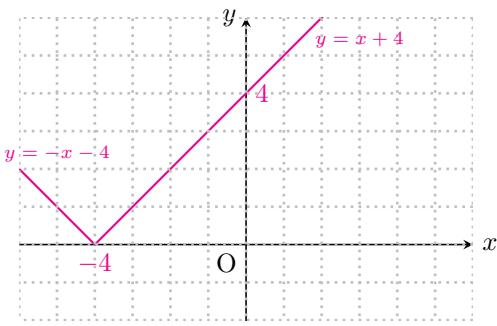
## Example 3

次のグラフを描きなさい。

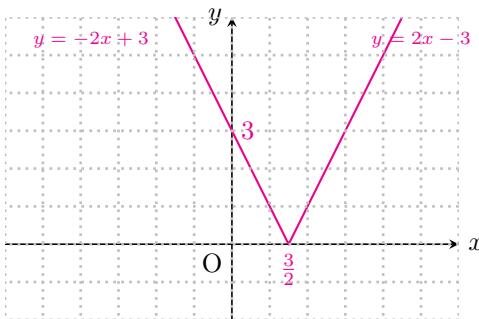
$$(1) \quad y = |x + 4|$$

$$(2) \quad y = |2x - 3|$$

$$(1) \quad y = |x + 4|$$



$$(2) \quad y = |2x - 3|$$

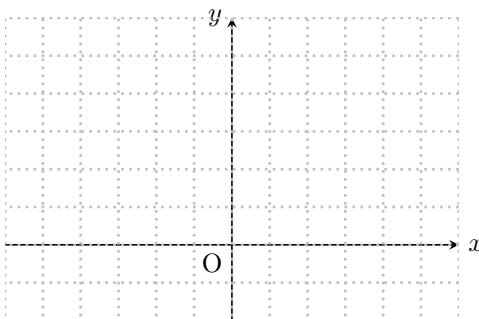


### Exercise3

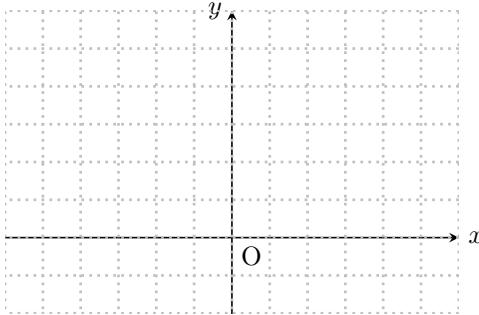
次のグラフを描きなさい。

- (1)  $y = |x - 1|$
- (2)  $y = |4x + 3|$

$$(1) \quad y = |x - 1|$$



$$(2) \quad y = |4x + 3|$$

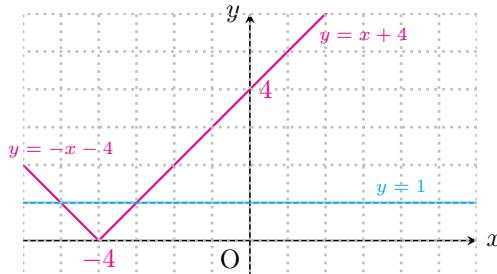


### Example 4

次の方程式を解きなさい。

- (1)  $|x + 4| = 1$
- (2)  $|2x - 3| = 4$

$$(1) \quad y = |x + 4| \text{ と } y = 1 \text{ を考える。}$$

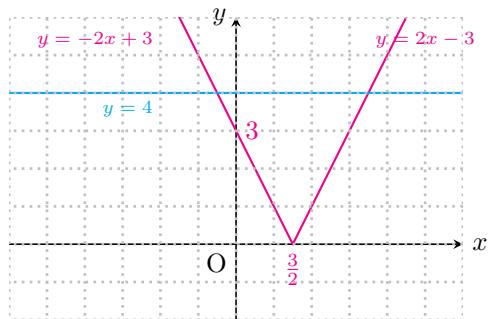


$$x + 4 = 1 \text{ より、} x = -3$$

$$-x - 4 = 1 \text{ より、} x = -5$$

答  $x = -3, -5$

$$(2) \quad |2x - 3| = 4$$



$$2x - 3 = 4 \text{ より、} x = \frac{7}{2}$$

$$-2x + 3 = 4 \text{ より、} x = -\frac{1}{2}$$

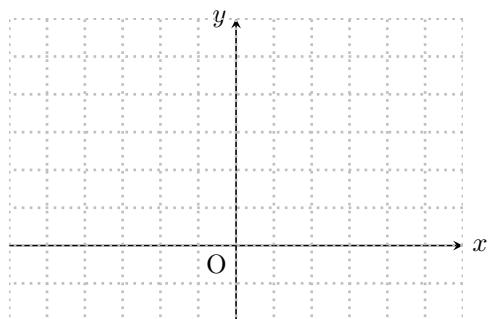
答  $x = \frac{7}{2}, -\frac{1}{2}$

### Exercise4

次の方程式を解きなさい。

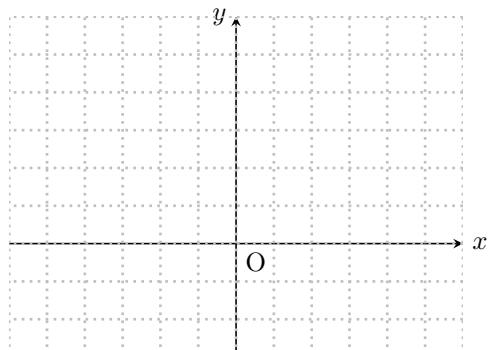
- (1)  $|x - 1| = 3$
- (2)  $|4x + 3| = 4$

$$(1) \quad |x - 1| = 3$$



答

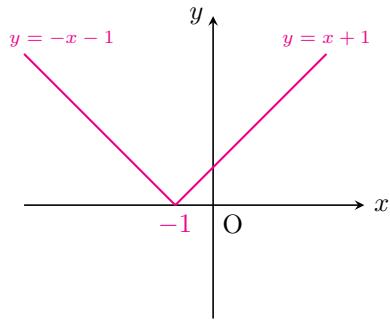
$$(2) \quad |4x + 3| = 4$$



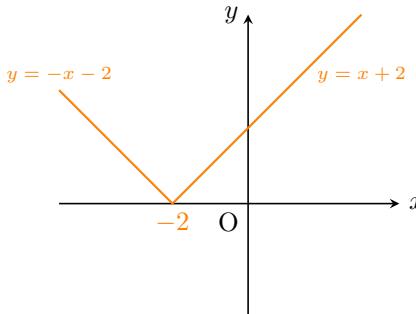
答

## Exercise 1

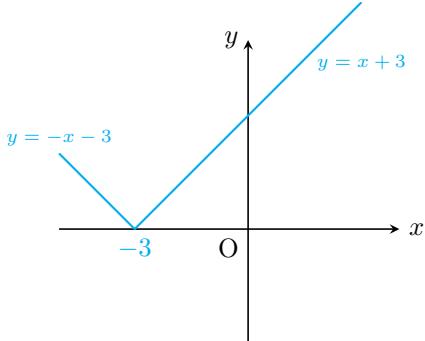
$$(1) \quad y = |x + 1|$$



$$(2) \quad y = |x + 2|$$

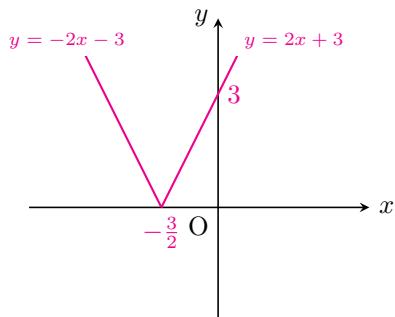


$$(3) \quad y = |x + 3|$$

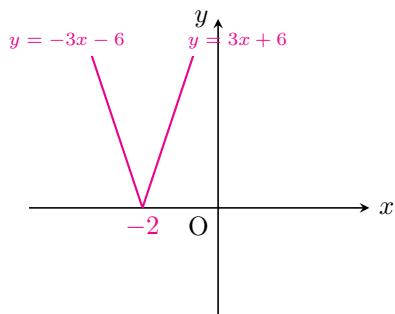


## Exercise2

$$(1) \quad y = |2x + 3|$$

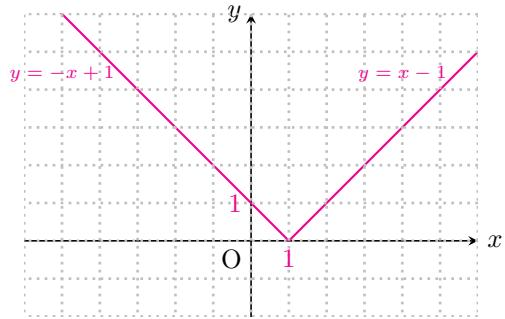


$$(2) \quad y = |3x + 6|$$

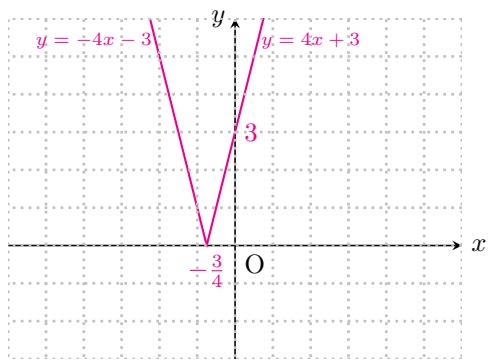


## Exercise3

$$(1) \quad y = |x - 1|$$

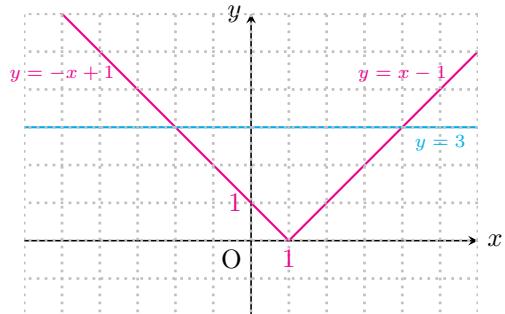


$$(2) \quad y = |4x + 3|$$



## Exercise4

$$(1) \quad |x - 1| = 3$$

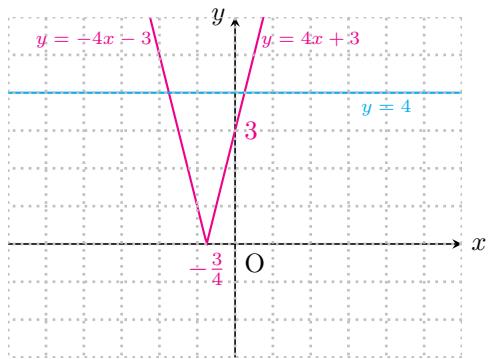


$$x - 1 = 3 \quad \text{より}、 \quad x = 4$$

$$-x + 1 = 3 \text{ より、 } x = -2$$

答  $x = 4, -2$

$$(2) \quad |4x + 3| = 4$$



$$4x + 3 = 4 \text{ より、} \quad x = \frac{1}{4}$$

$$-4x - 3 = 4 \text{ より、} \quad x = -\frac{7}{4}$$

答  $x = \frac{1}{4}, -\frac{7}{4}$