### 1.9 Homework

Complete the square to write the equation in vertex form.

1) $y=x^{2}+16 x+71$
2) $y=x^{2}-2 x-5$
3) $y=-x^{2}-14 x-59$
4) $y=2 x^{2}+36 x+170$
5) $y=x^{2}-12 x+46$
6) $y=x^{2}+4 x$

### 1.9 Homework

Complete the square to write the equation in vertex form.

1) $y=x^{2}+16 x+71$
2) $y=x^{2}-2 x-5$
3) $y=-x^{2}-14 x-59$
4) $y=2 x^{2}+36 x+170$
5) $y=x^{2}-12 x+46$
6) $y=x^{2}+4 x$

## Answer Key

1) $y=x^{2}+16 x+71$

$$
y=(x+8)^{2}+7
$$

2) $y=x^{2}-2 x-5$ $y=(x-1)^{2}-6$
3) $y=-x^{2}-14 x-59$

$$
y=-(x+7)^{2}-10
$$

4) $y=2 x^{2}+36 x+170$

$$
y=2(x+9)^{2}+8
$$

5) $y=x^{2}-12 x+46$

$$
y=(x-6)^{2}+10
$$

6) $y=x^{2}+4 x$

$$
y=(x+2)^{2}-4
$$

## Answer Key

1) $y=x^{2}+16 x+71$

$$
y=(x+8)^{2}+7
$$

2) $y=x^{2}-2 x-5$

$$
y=(x-1)^{2}-6
$$

$$
\text { 3) } \begin{aligned}
y & =-x^{2}-14 x-59 \\
y & =-(x+7)^{2}-10
\end{aligned}
$$

4) $y=2 x^{2}+36 x+170$

$$
y=2(x+9)^{2}+8
$$

$$
\text { 5) } \begin{aligned}
y & =x^{2}-12 x+46 \\
y & =(x-6)^{2}+10
\end{aligned}
$$

6) $y=x^{2}+4 x$

$$
y=(x+2)^{2}-4
$$

