## 1. Expand.

$$
\begin{aligned}
& (x+1)(x-1)= \\
& (x+1)(x+1)= \\
& (x+1)^{2}= \\
& (x-1)(x-1)= \\
& (x-1)^{2}=
\end{aligned}
$$

2. Factor.
$x^{2}-1=$
$x^{2}+2 x+1=$

$$
x^{2}-2 x+1=
$$

## 3. Expand.

$$
(x+3)(x-3)=
$$

$(x+3)^{2}=$
$10(x+3)^{2}=$
$(x-3)^{2}=$
$2(x-3)^{2}=$
4. Factor.
$x^{2}-9=$
$x^{2}+6 x+9=$
$10 x^{2}+60 x+90=$
$x^{2}-6 x+9=$
$2 x^{2}-12 x+18=$

## 5. Expand.

$(x+1)(x+2)=$
$(x+1)(x+3)=$
$(x+1)(x+4)=$
$(x+2)(x+3)=$
$(x+2)(x+4)=$
$(x+3)(x+4)=$
$(x+7)(x+8)=$
$(x+8)(x+9)=$
6. Factor.
$x^{2}+3 x+2=$
$x^{2}+4 x+3=$
$x^{2}+5 x+4=$
$x^{2}+5 x+6=$
$x^{2}+6 x+8=$
$x^{2}+7 x+12=$
$x^{2}+8 x+12=$
$x^{2}+13 x+12=$
$x^{2}+9 x+8=$
$x^{2}+7 x+6=$
$x^{2}+4 x+4=$

## 7. Expand.

$$
(x-1)(x-2)=
$$

$$
(x-1)(x-3)=
$$

$$
(x-1)(x-4)=
$$

$$
(x-2)(x-3)=
$$

$$
(x-2)(x-4)=
$$

$$
(x-3)(x-4)=
$$

$$
(x-7)(x-8)=
$$

$$
(x-8)(x-9)=
$$

8. Factor.
$x^{2}-3 x+2=$
$x^{2}-4 x+3=$
$x^{2}-5 x+4=$
$x^{2}-5 x+6=$
$x^{2}-6 x+8=$
$x^{2}-7 x+12=$
$x^{2}-8 x+12=$
$x^{2}-13 x+12=$
$x^{2}-9 x+8=$
$x^{2}-7 x+6=$
$x^{2}-4 x+4=$

## 9. Expand.

$$
(x-1)(x+2)=
$$

$$
(x+1)(x-2)=
$$

$$
(x-1)(x+4)=
$$

$$
(x+1)(x-4)=
$$

$$
(x-3)(x+4)=
$$

$$
(x+3)(x-4)=
$$

10. Factor.
$x^{2}-x-2=$
$x^{2}+x-2=$
$x^{2}+3 x-4=$
$x^{2}-3 x-4=$
$x^{2}+x-12=$
$x^{2}-x-12=$
$x^{2}+11 x-12=$
$x^{2}-11 x-12=$
$x^{2}+4 x-12=$
$x^{2}-4 x-12=$
$10 x^{2}-40 x-120=$
