$$
\begin{gathered}
9-26-13 \\
3^{\prime \prime} T r: 9
\end{gathered}
$$

Factur
(1)

$$
\begin{array}{ll}
x^{2}-x-12 & \frac{12}{1,12} \\
(x-4)(x+3) & 2,6 \\
3,4
\end{array}
$$

(2)

$$
\begin{aligned}
& \text { (2) } 2 x^{2}+11 x+15 \\
& x(2 x+15(x+15) \\
& x(2 x+15)(x+1) \\
& x(2 x+3)(x+5) \\
& \sqrt{1,5} \\
& (2 x+5)(x+3)
\end{aligned}
$$

(3) Use bustins $B$ method $t 0$ factur $\frac{2}{a} x^{2}+11 x+\frac{15}{2} . a<=30$

$$
\begin{array}{ll}
\left(2 x^{2}+6 x\right)+(5 x+15) & \begin{array}{l}
1,30 \\
2,15 \\
3,10 \\
2 x(x+3)+5(x+3)
\end{array} \\
(x+3)(2 x+5) &
\end{array}
$$

(4) Factor $x^{2}-25$

$$
(x-5)(x+5)
$$

(5) Factur $8 x^{3}-27$

$$
(2 x-3)\left(4 x^{2}+6 x^{5}+9^{5}\right)
$$

(6)

$$
\begin{gathered}
\text { Factu- }\left(6 x^{2}+8 x\right)+(15 x+20) \\
2 x(3 x+4)+5(3 x+4) \\
(3 x+4)(2 x+5)
\end{gathered}
$$

(7)

$$
\begin{aligned}
& \text { simplify } \frac{n^{2}+6 n+5}{n^{2}+7 n+6} \\
& \frac{(n+1)(n+5)}{(n+1)(n+6)}: \frac{n+5}{n+6}[n \neq-1]
\end{aligned}
$$

(8)

$$
\begin{aligned}
& a-13+\frac{92}{a+7} \\
& a + 7 \longdiv { a ^ { 2 } - 6 a + 1 } \\
& \frac{-a^{2}+7 a}{-13 a+1} \\
& =\frac{-13 a-91}{92}
\end{aligned}
$$

9-26-13
$4^{\text {on } 7 \text { riy }}$
Ch. 2 Review
(1) Factor

$$
\begin{array}{ll}
x^{2}-8 x-9 & \frac{9}{1159} \\
(x+1)(x-9) & 3,3
\end{array}
$$

(2) Factor

$$
\begin{gathered}
x^{2}-49 \\
(x+7)(x-7)
\end{gathered}
$$

(3)

$$
\begin{aligned}
& \text { factor } 7 x^{2}+43 x+6 \\
& (7 x+\sqrt{2}(x+6) \\
& x(7 x+6)(x+1) \\
& x(7 x+2)(x+3) \\
& x(7 x+3)(x+2)
\end{aligned}
$$

(4) Factor a bove by bustia, $B$ methed

$$
\begin{aligned}
& \text { I } x^{2}+43 x+6 \quad a \cdot c=42 \\
& \left(7 x^{2}+x\right)+(42 x+6) \\
& x(7 x+1)+6(7 x+1) \\
& \begin{array}{l}
1,42 \\
2,21 \\
3,14 \\
6.7
\end{array} \\
& (7 x+1)(x+6)
\end{aligned}
$$

(5) Factur $x^{3}-125$

$$
(x-5)\left(x^{2}+5 x+25\right)
$$

(6)

$$
\begin{aligned}
& \text { Factor }(2 x y+3 y)+(8 x+12) \\
& \begin{array}{l}
(2 x+3)+4(2 x+3) \\
(2 x+3)(y+4)
\end{array}
\end{aligned}
$$

(7)

$$
\begin{aligned}
& \text { Simpl:fy } \frac{n^{2}+3 n+2}{n^{2}+8 n+7} \\
& \frac{((n+1)(n+2)}{1(n+1)(n+7)}=\frac{n+2}{n+7}[n \neq-1]
\end{aligned}
$$

(8)

$$
\begin{array}{r}
n + 2 \longdiv { n + 1 + \frac { 5 } { n + 2 } } \begin{array} { r } 
{ n ^ { 2 } + 3 n + 7 } \\
{ - n ^ { 2 } + 2 n \downarrow } \\
{ \frac { - n + 7 } { 5 } }
\end{array}
\end{array}
$$

