

$$1.) m+1 - \frac{3}{m-8}$$

$$2.) n+5 + \frac{1}{n-6}$$

$$5.) n+4 + \frac{7}{n-7}$$

$$6.) a+5 - \frac{3}{a-5}$$

$$a.) x-10 - \frac{8}{2x+3}$$

$$10.) 6x-6 + \frac{9}{7x+7}$$

$$13.) n^2+5n+4 - \frac{5}{n+2}$$

$$14.) p^2-5p-5 + \frac{1}{p-5}$$

$$17.) k^2-7k-9 + \frac{9}{k+3}$$

$$18.) k^2-4k+4 + \frac{8}{k-1}$$

$$(x^3-2x+1) \div (x-1)$$

$$\begin{array}{r} x^2 + x + 1 \\ x-1 \overline{) x^3 + 0x^2 - 2x + 1} \\ \underline{-x^3 + x^2} \\ 1x^2 - 2x + 1 \\ \underline{-1x^2 + x} \\ -1x + 1 \\ \underline{-1x + 1} \\ 0 \end{array}$$

$$\boxed{x^2 + x - 1}$$

Remainder = $\frac{\#}{\text{divisor}}$

Step 1: Divide $\frac{x^3}{x} = x^2$ ← put in Quotient

Step 2: multiply: $x^2(x-1)$
 $x^3 - x^2$ ← put under dividend

Step 3: Subtract $0 - -1 = 1$

Step 4: Bring down terms

Step 5: Repeat

$$\frac{x^2}{x} = x \quad x(x-1) \quad -2 - -1 = -1$$

$$x^2 - x \quad -\frac{x}{x} = -1 \quad -1(x-1)$$