7. $f(x)$: $(x-1)$ sisa 4

$g(x)$: $(x-1)$ sisa 2

$f(x)$: $(x+3)$ sisa -5

$g(x)$: $(x+3)$ sisa 4

Karena $h(x) = f(x) \cdot g(x)$

maka $h(x)$: $(x-1)$ sisa $4 \times 2 = 8$

dan $h(x)$: $(x+3)$ sisa $(-5) \times 4 = -20$

Menurut teo sisa :

$h(x)$: $[(x-1)(x+3)]$ mpy

sisa $ax+b$ dgn

$h(1) = a+b = 8$

$h(-3) = -3a+b = -20$

$a+b = 8$

$-3a+b = -20$ (−)

$4a = 28$

$a = 7$

$b = 8-7$

$= 1$

Jadi, sisa dr $h(x)$ saat dibagi

x^2+2x-3 adl $7x+1$

8. $p(x) = x^3 - 11x^2 + 30x - 8$

cek $x = 4$

$p(4) = 64 - 176 + 120 - 8$

$= 0$

shg salah satu akar dr $p(x)$ adl $(x-4)$

9. $f(x)$: $(x+1)$ sisa 10

$f(x)$: $(2x-3)$ sisa 5

Menurut teo sisa,

$f(x)$: $[(x+1)(2x-3)]$ mpy sisa

$ax+b$ dgn $f(-1) = -a+b$

$f(3/2) = \frac{3}{2}a+b$

krn

$f(-1) = S(-1) = 10$

$f(3/2) = S(3/2) = 5$

mk :

$-a+b = 10$

$3/2\,a+b = 5$ (−)

$-5/2\,a = 5$

$a = -2$

$b = 10+a$

$= 10+(-2)$

$= 8$

Jadi, sisa $f(x)$ saat dibagi

$2x^2 - x - 3$ adl $(8-2x)$

10. $f(x)$: $(x+2)$ sisa 4

$f(x)$: $(2x-1)$ sisa 6

Menurut teo sisa,

$f(x)$: $[(x+2)(2x-1)]$ mpy sisa

$ax+b$ dgn $f(-2) = -2a+b$

$f(1/2) = \frac{1}{2}a+b$

krn :

$f(-2) = S(-2) = 4$ → $b = 4+2a$

$f(1/2) = S(1/2) = 6$ $= 4+2.4/5$

$= 4+8/5$

mk : $= \frac{28}{5}$

$-2a+b = 4$

$1/2\,a+b = 6$ (−) $= 5\,3/5$

$-5/2\,a = -2$

$a = 4/5$

Jadi, sisa $h(x)$ saat dibagi $2x^2+3x-2$

adl $(4/5\,x + 5\frac{3}{5})$