HW88

Using Long Division to Factor – Answers

1. $f(x)=(x+5)(x+1)(x+3)$

2. $g(x)=(x+4)(5x-2)(x-4)$

3. $h(x)=(x+2)(2x+3)(x-3)$

4. $(x+3)(x+4)(x+5)$

5. $k(x)=(2x+7)(x+2)(x-3)$

6. $m(x)=(3x-2)(2x+1)(x+3)(x-3)$

7. $(x+7)-\frac{16}{x+2}$

8. $(4x+1)-\frac{6}{2x+1}$

9. $(x^2+10x+20)+\frac{82}{x-4}$

10. x^2+x-3

11. $(2x^2+3x-9)+\frac{15}{x+3}$

12. No, Rem = 7

13. Yes

14. No, Rem = 240

15. Yes

2. $x+4 \overline{)\,5x^3-2x^2-80x+32}$

$5x^2-22x+8$

$-\,(5x^3+20x^2)$

$-22x^2-80x$

$-\,(-22x^2-88x)$

$8x+32$

$-\,(8x+32)$

0

$5x^2-22x+8=(5x-2)(x-4)$

So . . . $5x^3-2x^2-80x+32=(5x-2)(x-4)(x+4)$