

2.

Which of the following is the Quotient of  $-3h^6 - 6h^5 + 9h^4 + 22h^3 + 10h^2 - 5h - 2$  divided by  $(-h - 2)(-h - 1)^2$

$$\begin{array}{r}
 \phantom{(-h-2)(-h-1)^2} \phantom{(-3)h^6} \phantom{+(-6)h^5} \phantom{+(9)h^4} \phantom{+(22)h^3} \phantom{+(10)h^2} \phantom{+(-5)h} \phantom{+(-2)} \\
 \phantom{(-h-2)(-h-1)^2} \phantom{(-3)h^6} \phantom{+(-6)h^5} \phantom{+(9)h^4} + (3h^3) + (-6h^2) + (2) \\
 \hline
 (-h-2)(-h-1)^2 \phantom{+} (-3)h^6 + (-6)h^5 + (9)h^4 + (22)h^3 + (10)h^2 + (-5)h + (-2) \\
 \phantom{(-h-2)(-h-1)^2} (-3h^6) + (-12h^5) + (-15h^4) + (-6h^3) \\
 \phantom{(-h-2)(-h-1)^2} \phantom{(-3h^6)} + (6)h^5 + (24)h^4 + (28)h^3 + (10)h^2 + (-5)h + (-2) \\
 \phantom{(-h-2)(-h-1)^2} \phantom{(-3h^6)} + (6h^5) + (24h^4) + (30h^3) + (12h^2) \\
 \phantom{(-h-2)(-h-1)^2} \phantom{(-3h^6)} \phantom{+(-6)h^5} \phantom{+(24)h^4} + (-2)h^3 + (-2)h^2 + (-5)h + (-2) \\
 \phantom{(-h-2)(-h-1)^2} \phantom{(-3h^6)} \phantom{+(-6)h^5} + (-2h^3) + (-8h^2) + (-10h) + (-4) \\
 \phantom{(-h-2)(-h-1)^2} \phantom{(-3h^6)} \phantom{+(-6)h^5} \phantom{+(-2h^3)} + (6h^2) + (5h) + (2)
 \end{array}$$

Coefficient list:

$\{3, -6, 0, 2\}$