

- a) $(8a^3 + 22a^2b + 27ab^2 + 18b^3) : (2a + 3b)$
 b) $(12x^5 + 25x^4 + 39x^3 + 96x^2 + 74x + 7) : (4x + 7)$
 c) $(12a^2 + 26ab + 10b^2 + 3ac + 5bc) : (3a + 5b)$
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a) $(8a^3 + 22a^2b + 27ab^2 + 18b^3) : (2a + 3b) = 4a^2 + 5ab + 6b^2$

$$\begin{array}{r}
 8a^3 + 12a^2b \\
 \hline
 10a^2b \\
 10a^2b + 15ab^2 \\
 \hline
 12ab^2 \\
 12ab^2 + 18b^3 \\
 \hline
 0
 \end{array}$$

Wie Aufgabe 1a

b) $(12x^5 + 25x^4 + 39x^3 + 96x^2 + 74x + 7) : (4x + 7) = 3x^4 + x^3 + 8x^2 + 10x + 1$

$$\begin{array}{r}
 12x^5 + 21x^4 \\
 \hline
 4x^4 \\
 4x^4 + 7x^3 \\
 \hline
 32x^3 \\
 32x^3 + 56x^2 \\
 \hline
 40x^2 \\
 40x^2 + 70x \\
 \hline
 4x \\
 4x + 7 \\
 \hline
 0
 \end{array}$$

c) $(12a^2 + 26ab + 10b^2 + 3ac + 5bc) : (3a + 5b) = 4a + 2b + c$

$$\begin{array}{r}
 12a^2 + 20ab \\
 \hline
 6ab \\
 6ab + 10b^2 \\
 \hline
 3ac + 5bc \\
 3ac + 5bc \\
 \hline
 0
 \end{array}$$