1b $(a^3b^2 - a^2b + 2a)(-ab)^{-1}$

$$\frac{a^3b^2 - a^2b + 2a}{-ab}$$

$$\frac{1a^3b^2}{-1ab} - \frac{1a^2b}{-1ab} + \frac{2a}{-1ab}$$

$$-a^2b + a - \frac{2}{b}$$

ex 2

$(z^2 + 2z - 24) \div (z - 4).$

$$
\begin{array}{r|l}
 & z + 6 \\
\hline
z - 4 & z^2 + 2z - 24 \\
(-) & z^2 - 4z \\
\hline
 & 6z - 24 \\
(-) & 6z - 24 \\
\hline
 & 0
\end{array}
$$

$\frac{z^2}{z} = z$

$\frac{6z}{z} = 6$

2B. $(x^2 - 13x + 12) \div (x - 1)$

$$
\begin{array}{r|l}
 & x - 12 \\
\hline
x - 1 & x^2 - 13x + 12 \\
(-) & x^2 - x \\
\hline
 & -12x + 12 \\
(-) & -12x + 12 \\
\hline
 & 0
\end{array}
$$

$\frac{x^2}{x} = x$

$\frac{-12x}{x} = -12$

ex 3

$$
\begin{array}{r|l}
 & -t - 8 + \frac{31}{-t+5} \\
\hline
-t + 5 & t^2 + 3t - 9 \\
(-) & t^2 - 5t \\
\hline
 & 8t - 9 \\
(-) & 8t - 40 \\
\hline
 & 31
\end{array}
$$

$\frac{t^2}{-t} = -t$

$\frac{8t}{-t} = -8$

3

$$-r-6+\frac{13}{-r+1}$$

$$-r+1 \overline{\big) r^2+5r+7}$$

$$(-)\ r^2-r$$

$$6r+7$$

$$(-)\ 6r-6$$

$$13$$

$$\frac{r^2}{-r}=-r$$

$$\frac{6r}{-r}=-6$$

---

ex. 4

$$5x^2-3x+4$$

$$x-2 \overline{\big) 5x^3-13x^2+10x-8}$$

$$(-)\ 5x^3-10x^2$$

$$-3x^2+10x$$

$$(-)\ -3x^2+6x$$

$$4x-8$$

$$(-)\ 4x-8$$

$$0$$

$$\frac{5x^3}{x}=5x^2$$

$$\frac{-3x^2}{x}=-3x$$

$$\frac{4x}{x}=4$$

ex 5

$0x^3$

$(8x^4 - 4x^2 + x + 4) \div (2x + 1)$.

$$4x^3-2x^2-x+1+\frac{3}{2x+1}$$

$$2x+1 \overline{\big) 8x^4+0x^3-4x^2+x+4}$$

$$(-)\ 8x^4+4x^3$$

$$-4x^3-4x^2$$

$$(-)\ -4x^3-2x^2$$

$$-2x^2+x$$

$$(-)\ -2x^2-x$$

$$2x+4$$

$$(-)\ 2x+1$$

$$3$$

$$\frac{8x^4}{2x}=4x^3$$

$$\frac{-4x^3}{2x}=-2x^2$$

$$\frac{-2x^2}{2x}=-x$$

$$\frac{2x}{2x}=1$$

5B $(8y^5 - 2y^4 - 16y^2 + 4) \div (4y - 1)$