Nama :

Kelas :

1. Sederhanakanlah bentuk eksponen berikut:

   a. $(2^3)^4.(2^3)^{-5}$

$$(2^3)^4.(2^3)^{-5} = (\square^{\square}).(\square^{\square})$$
$$= (\square^{\square})$$

   b. $\frac{16.2^8}{2^{10}}$

$$\frac{16.2^8}{2^{10}} = \frac{(\square^{\square}).(\square^{\square})}{\square^{\square}}$$
$$= \frac{(\square^{\square})}{(\square^{\square})}$$
$$= \square^{\square}$$

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2. Nilai x yang memenuhi $5^{3x-2} = 25^{2x+1}$

$$5^{3x-2} = 25^{2x+1}$$
$$\square^{\square} = (\square^{\square})^{\square}$$
$$\square^{\square} = \square^{\square}$$
$$\ldots = \cdots$$
$$\ldots = \cdots$$
$$x = \cdots$$

3. Jika x=27, y=36 dan z=3 . tentukanlah nilai

$$\frac{x^{\frac{2}{3}}.y^{\frac{3}{2}}}{z^2}$$

$$\frac{x^{\frac{2}{3}}.y^{\frac{3}{2}}}{z^2} = \frac{(\ldots)^{\frac{2}{3}}.(\ldots)^{\frac{3}{2}}}{(\ldots)^2}$$
$$= \frac{(\ldots^{\square})^{\frac{2}{3}}.(\ldots^{\square})^{\frac{3}{2}}}{(\ldots)^2}$$
$$= \frac{\square^{\square}.\square^{\square}}{\square^{\square}}$$
$$= \square^{\square}.\square^{\square}$$

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4. Bentuk sederhana dari $4\sqrt{3} + 3\sqrt{12} - \sqrt{27}$

$$
\begin{aligned}
4\sqrt{3} + 3\sqrt{12} - \sqrt{27} &= 4\sqrt{3} + 3\sqrt{\ldots \times \ldots} - \sqrt{\ldots \times \ldots} \\
&= \cdots\sqrt{\ldots} + \cdots \times \ldots\sqrt{\ldots} - \cdots\sqrt{\ldots} \\
&= (\ldots + \cdots - \cdots)\sqrt{\ldots} \\
&= \cdots\sqrt{\ldots}
\end{aligned}
$$

5. Bentuk sederhana dari $\frac{6}{\sqrt{8}+\sqrt{5}}$

$$
\begin{aligned}
\frac{6}{\sqrt{8} + \sqrt{5}} &= \frac{\ldots}{\sqrt{\ldots} + \sqrt{\ldots}} \times \frac{\sqrt{\ldots} - \sqrt{\ldots}}{\sqrt{\ldots} - \sqrt{\ldots}} \\
&= \frac{\ldots\left(\sqrt{\ldots} - \sqrt{\ldots}\right)}{\left(\sqrt{\square}\right)^{\square} - \left(\sqrt{\square}\right)^{\square}} \\
&= \frac{\ldots\sqrt{\ldots} - \cdots\sqrt{\ldots}}{\ldots - \cdots} \\
&= \frac{\ldots\sqrt{\ldots} - \cdots\sqrt{\ldots}}{\ldots} \\
&= \cdots\sqrt{\ldots} - \cdots\sqrt{\ldots}
\end{aligned}
$$

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