

<p>1. Express $\log N$ in terms of $\log x$, $\log y$, and $\log z$ given that $N = \frac{x\sqrt{y}}{z^2}$.</p>	<p>2. If $\log a = c$, then $\log 100a$ equals</p> <p>(1) $100c$ (3) $2 + c$ (2) $2c$ (4) $2 + \log c$</p>	<p>1. _____</p> <p>2. _____</p>
<p>3. Given $\log 3 = x$ and $\log 5 = y$, express $\log \sqrt{\frac{3}{5}}$ in terms of x and y.</p>	<p>4. Solve for x: $3\log_2 4 = \log_2 n$</p>	<p>3. _____</p> <p>4. _____</p>
<p>The expression $3\log x - \frac{1}{2}\log y$ is equivalent to</p> <p>5. (1) $\log\left(\frac{x^3}{y^2}\right)$ (3) $\log\sqrt{\frac{3x}{y}}$ (2) $\log\left(\frac{x^3}{\sqrt{y}}\right)$ (4) $\frac{\log 3x}{\frac{1}{2}\log y}$</p>	<p>The expression $\log_2(x - 4)$ is undefined for all values of x such that</p> <p>6. (1) $x > 1$ (3) $x \leq 4$ (2) $x > 0$ (4) $x \leq 0$</p>	<p>5. _____</p> <p>6. _____</p>
<p>The roots of the equation $x^2 - x + 10 = 0$ are</p> <p>7. (1) real, rational, and equal (2) real, rational, and unequal (3) real, irrational, and unequal (4) imaginary</p>	<p>8. Solve and check: $\sqrt{1 - 2x} = \sqrt{x^2 - 7}$</p>	<p>7. _____</p> <p>8. _____</p>
<p>9. Which transformation is <i>not</i> an example of an isometry?</p> <p>(1) line reflection (2) rotation (3) translation (4) dilation</p>	<p>10. a) Find the image of $(7, -2)$ under the transformation: $r_{y=x} \circ R_{0,90^\circ}$ b) Name the single transformation that is equivalent to $r_{y=x} \circ R_{0,90^\circ}$.</p>	<p>9. _____</p> <p>10. _____</p>