

<p>1. [Aug 2001, #2] Which expression is rational?</p> <p>(1) π (3) $\sqrt{3}$ (2) $\sqrt{\frac{1}{2}}$ (4) $\sqrt{\frac{1}{4}}$</p>	<p>If $A = \frac{1}{2}h(b + c)$, what is the value of b</p> <p>6. when $A = 50$, $h = 4$, and $c = 11$?</p> <p>(1) 14 (3) 36 (2) 24 (4) 56</p>	<p>1. _____ 2. _____</p>
<p>2. [Jan 2002, #4] What is the value of x in the equation $\frac{3}{4}x + 2 = \frac{5}{4}x - 6$?</p> <p>(1) -16 (3) -4 (2) 16 (4) 4</p>	<p>7. [Aug 2001, #13] If n represents an odd number, which computation results in an answer that is an even number?</p> <p>(1) $2 \times n + 1$ (3) $3 \times n - 2$ (2) $2 \times n - 1$ (4) $3 \times n + 1$</p>	<p>3. _____ 4. _____</p>
<p>3. [Aug 2001, #18] What is the solution set of $m^2 - 3m - 10 = 0$?</p> <p>(1) {5, -2} (3) {3, -10} (2) {2, -5} (4) {3, 10}</p>	<p>8. [Aug 2001, #3] Written in simplest factored form, the binomial $2x^2 - 50$ can be expressed as</p> <p>(1) $2(x - 5)(x - 5)$ (3) $(x - 5)(x + 5)$ (2) $2(x - 5)(x + 5)$ (4) $2x(x - 50)$</p>	<p>5. _____ 6. _____</p>
<p>4. Evaluate $\frac{10 - 2x^3}{(-2x)^2}$ if $x = -2$.</p>	<p>9. [Jun 1999, #9] The larger root of the equation $(x + 4)(x - 3) = 0$ is</p> <p>(1) -4 (3) 3 (2) -3 (4) 4</p>	<p>7. _____ 8. _____</p>
<p>5. [Jun 2002, #18] The expression $\sqrt{90} \cdot \sqrt{40} - \sqrt{8} \cdot \sqrt{18}$ simplifies to</p> <p>(1) 22.9 (3) 864 (2) 48 (4) 3,456</p>	<p>10. Simplify: $\frac{3}{5} \div 11$</p>	<p>9. _____ 10. _____</p>

<p>11. Simplify: $\frac{1}{12} + \frac{1}{4}$</p>	<p>Solve for the positive value of x : $5x^2 - 80 = 0$</p> <p>16. (1) 2 (3) $4\sqrt{5}$ (2) 4 (4) 8</p>	<p>11. _____</p>
<p>12. Solve: $\frac{4q}{3} = \frac{1}{12}$</p>	<p>If $x = 20$ and $y = -3$, find the value of</p> <p>17. $\frac{-xy^2}{1-y^2}$.</p>	<p>12. _____</p> <p>13. _____</p>
<p>Which number below is rational?</p> <p>13. (1) π (3) $\sqrt{0.09}$ (2) $\sqrt{0.9}$ (4) $\sqrt{3}$</p>	<p>If a is an odd integer and b is an even integer, which of the following is an even integer?</p> <p>18. (1) $a + 2b$ (3) $a^2 + b$ (2) $3a + 3$ (4) $a^2 + 2b$</p>	<p>14. _____</p> <p>15. _____</p>
<p>Which choice represents the scientific notation for 0.0000801?</p> <p>14. (1) 8.01×10^4 (3) 80.1×10^6 (2) 80.1×10^{-5} (4) 8.01×10^{-5}</p>	<p>If $\sqrt{k} > k > k^2$, then k could be</p> <p>19. (1) 0 (3) 1 (2) $\frac{1}{9}$ (4) 9</p>	<p>16. _____</p> <p>17. _____</p>
<p>15. Evaluate $-(x^2 - 9)$ if $x = -4$.</p>	<p>20. Simplify: $\frac{3x}{7} \cdot \frac{1}{2y}$</p>	<p>18. _____</p> <p>19. _____</p> <p>20. _____</p>