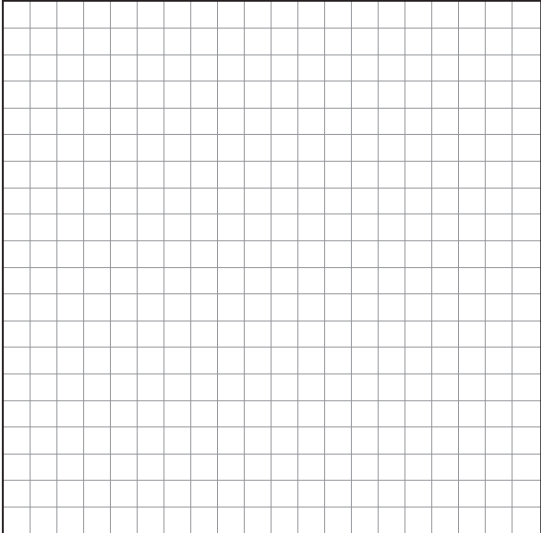
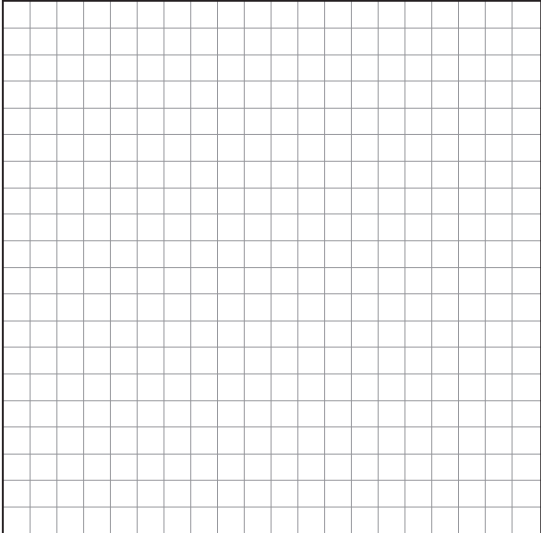


<p>1. The domain of the relation $y = \frac{4}{\sqrt{x-1}}$ is the set</p> <p>(1) $\{x x > 1\}$ (3) $\{x x < 1\}$ (2) $\{x x \geq 1\}$ (4) $\{x x > 2\}$</p>	<p>2. Which is the range of the relation $y = 2x^2 + 3x$ if the domain is the set $\{-2, -1, 0\}$?</p> <p>(1) 2, 1, 0 (3) -1, -5, 0 (2) 2, -1, 0 (4) 10, 1, 0</p>
<p>3. Which negative real number is <i>not</i> in the domain of $\frac{3}{x^2 - 4}$?</p>	<p>4. State the domain and range of the relation $A = \{(0, -1), (0, 3), (2, -1), (-1, 2)\}$.</p>
<p>5. Which of the following statements is <i>false</i>?</p> <p>(1) $-\sqrt[3]{(4)^3} = -4$ (3) $\sqrt[4]{(-3)^4} = -3$ (2) $\sqrt[3]{(-4)^3} = -4$ (4) $\sqrt[4]{(-3)^4} = 3$</p>	<p>6. The inequality $4S - 28 \leq 20$ represents the number of shirts that are in Marina's closet. Solve for S,</p>
<p>7. If the graph of the equation $y = 2x^2 + 4x + c$ does <i>not</i> intersect the x-axis, then c may be equal to</p> <p>(1) 1 (3) -2 (2) 2 (4) 5</p>	
<p>8. Add graphically: $(-3 + i) + (6 + 3i)$.</p> 	<p>9. Subtract graphically: $(3i - 4) - (8i)$</p> 

10. Express in simplest radical form:

$$2\sqrt{\frac{7}{3}} - 3\sqrt{\frac{3}{7}} - 2\sqrt{84}$$

11. In an electrical circuit, the voltage, E , in volts, the current, I , in amps, and the opposition to the flow of current, called impedance, Z , in ohms, are related by the equation $E = IZ$. A circuit has a voltage of $(-7 + 8i)$ volts and an impedance of $(2 + 3i)$ ohms. Determine the current in $a + bi$ form.

12. If $2 - i$ is one root of a quadratic equation with real coefficients, what is the product of the roots of the equation?

13. Simplify: $\frac{2 - 5\sqrt{2}}{3\sqrt{2} - 2}$

14. Find the roots of the equation $-11a + 15 = -2a^2$.

15. Express as a single fraction in simplest form:

$$\frac{4x + 2}{x^2 - 6x - 16} - \frac{3}{x - 8}$$