

Distance Formula/Systems of Equations Practice Problems

1	<p>A system of equations is shown below.</p> $f(x) = x^2$ $f(x) = 2x + 3$ <p>a. What are the points of intersection of the system?</p> <ol style="list-style-type: none">1.2. <p>b. What is the distance between the points of intersection of the system?</p>
2	<p>A system of equations is shown below.</p> $g(a) = 2 a + 3 $ $g(a) = a + 6$ <p>a. What are the points of intersection of the system?</p> <ol style="list-style-type: none">1.2. <p>b. What is the distance between the points of intersection of the system?</p>
3	<p>A system of equations is shown below.</p> $f(p) = \frac{1}{2} p $ $f(p) = \sqrt{p}$ <p>a. What are the points of intersection of the system?</p> <ol style="list-style-type: none">1.2. <p>b. What is the distance between the points of intersection of the system?</p>
4	<p>A system of equations is shown below.</p> $f(x) = 4 x $ $f(x) = x^2$ <p>b. What are the points of intersection of the system?</p> <ol style="list-style-type: none">1.2. <p>b. What is the distance between the points of intersection of the system?</p>

Miscellaneous Exam Practice

5	<p>A city map is placed on a coordinate grid. The post office is located at the point $P(5, 35)$, the library is located at the point $L(15, 10)$, and the fire station is located at the point $F(9, 25)$. What is the ratio of the length of \overline{PF} to the length of \overline{LF}?</p> <p>A 2 : 3 B 3 : 2 C 2 : 5 D 3 : 5</p>
6	<p>Which expression is equivalent to $(3x^5 + 17x^3 - 1) + (-2x^5 - 6)$?</p>
7	<p>Which equation has exactly one real solution?</p> <p>A $4x^2 - 12x - 9 = 0$ B $4x^2 + 12x + 9 = 0$ C $4x^2 - 6x - 9 = 0$ D $4x^2 + 6x + 9 = 0$</p>
8	<p>The graph of $f(x) = x^2$ will be translated 5 units up and 2 units to the right. Which function describes the graph produced by the translation?</p> <p>A $g(x) = x^2 - 4x + 9$ B $g(x) = x^2 + 4x - 1$ C $g(x) = x^2 - 10x + 27$ D $g(x) = x^2 + 10x + 23$</p>