FSAP
Slope

1. Calculate the slope determined by the points A and B.

   (a) $A(0,0)$ and $B(3,-2)$

   (b) $A(1,2)$ and $B(-4,1))$

   (c) $A(-3,-1)$ and $B(2,-3)$

2. How can you tell whether three points are collinear (ie. form a line)? Are $A(3,1)$, $B(8,3)$ and $C(-2,0)$ collinear? How do you know?

3. If $A(1,0)$ and $B(3,1)$ are on a line, can you give the coordinates of two other points on this line?

4. If two different lines have the same slope will they ever intersect? Explain how you know.

5. If two lines have different slopes, must they meet? Explain how you know.

6. Simplify the radicals.

   (a) $\sqrt{250}$ (b) $\sqrt{1000}$

7. What is the length of the hypotenuse of a right triangle with legs of length 1 and 7?

8. What is the length of the leg of a right triangle with the other leg having length 5 and a hypotenuse of 13?

9. Let $A(1,2)$, $B(1,5)$, and $C(4,5)$. Find the distance from A to C.

10. Let $A(-2,1)$, $B(-4,-8)$ and $C(0,0)$. What are the lengths of the sides of $\triangle ABC$?

11. Let $A(2,-3)$ and $B(-1,2)$. What is the distance from A to B?