

Practice 2.2.3**Remember to show your work!**

2-75. Nafeesa graphs a line with slope that passes through the point $(3, -2)$.

a. Review the Math Notes box in this lesson. Write an equation for her line in point-slope form.

b. What are the intercepts of the line?

2-76. The angle of elevation of the sun (the angle the rays of sunlight make with the flat ground) at 10:00 a.m. is 29° . At that time, a tree's shadow is 32 feet long. How tall is the tree?

2-77. Write each expression below in simple radical form.

a. $\sqrt{75} + \sqrt{27}$

b. $\sqrt{x} + 2\sqrt{x}$

c. $(\sqrt{12})^2$

d. $(3\sqrt{12})^2$

2-78. Solve the system of equations below.

$$3x + 8 = 2$$

$$7x + 3y = 1$$

2-79. Lexington High School has an annual growth rate of 4.7%. Three years ago there were 1500 students at the school.

a. How many students are there now?

b. How many students were there 5 years ago?

2-82. Decide whether each of the following functions is even, odd, or neither. "Show" your reasoning mathematically.

a. $y = \frac{2}{3}x + 1$

b. $y = (x + 2)^2$

c. $y = |x| - x^2$