

## MATH 4: Homework 15

Due January 27, before the start of the class

Homework must be submitted on time—at least 15 minutes before the start of the class.

Homework will not be graded after the solutions are posted on Google Classroom.

Write the answers on separate sheets of paper, not between the lines.

1. Write an expression with a variable and then solve the problem.  
One box contains  $a$  pencils, and the other has 4 times fewer pencils than the first. How many more pencils are in the first box than in the second?
2. 10 identical notebooks cost  $x$  dollars. A textbook costs 15 dollars more than a notebook. Write your answers to the following questions using the variable  $x$ 
  - a. What is the price of one notebook?
  - b. What is the price of the textbook?
  - c. What is the price of  $n$  notebooks?
  - d. What is the price of  $n$  notebooks and  $m$  textbooks?
3. The sum of three consecutive odd numbers is 135. What is the smallest of the three numbers? (Hints: if your first odd number is  $n$ , the second will be  $n+2$ , then the third will be?)
4. Solve the following equations:

a.  $2x + 3 = 11$ ;

b.  $\frac{1}{2}x - 5 = 12$ ;

c.  $14 + x = 4 + 6x$

5. Evaluate:

$$\frac{5.6 \cdot 3\frac{1}{3} \cdot 0.63}{4.9 \cdot 0.018 \cdot 5\frac{1}{3}}$$

6. Peter ate half of the chocolates he had collected on Halloween night. The next day, he ate half of the remaining chocolates and gave the rest to his younger brother. He gave his brother 5 chocolates. How many candies did Peter collect?

7. Point locator (use your knowledge of circles)

- a) Draw (plot) two points on your HW page, X and Y, so that  $\overline{XY} = 8$  cm.
- b) Draw all points located 5 cm from point X.
- c) Draw all points located 6 cm from point Y.
- d) **Label** all points located 5 cm from point X and 6 cm from point Y.

8. Measure the distance between points A and B on this page and plot AB on your HW page. Plot triangle  $\triangle ABC$  such that  $|AC| = 4$  cm,  $|BC| = 5$  cm, and record your algorithm (construction steps). Hint: use the compass to measure 4 cm and center it at point A.

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_

**A** •

•  
**B**