

Unit 2 HW 23

Name _____

Date _____

Period _____

Simplify

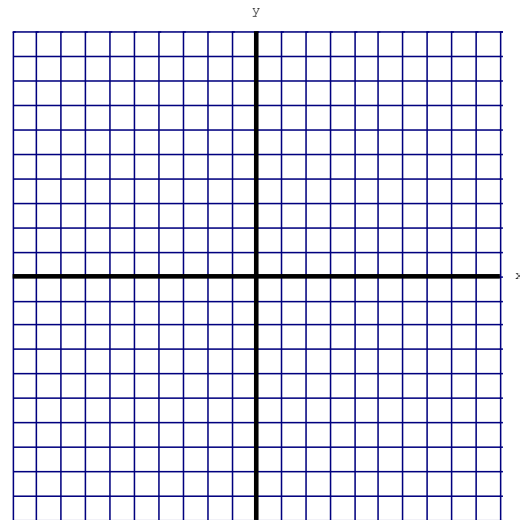
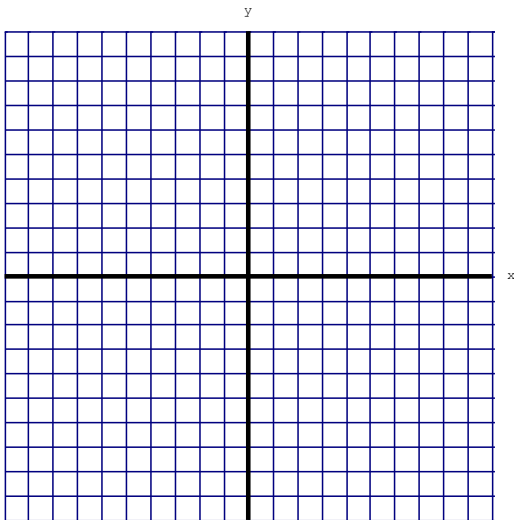
1. $-2(-6)^2 + 40$

2. $-10(3)^2 + 23(7) - 36$

Graph each linear equation.

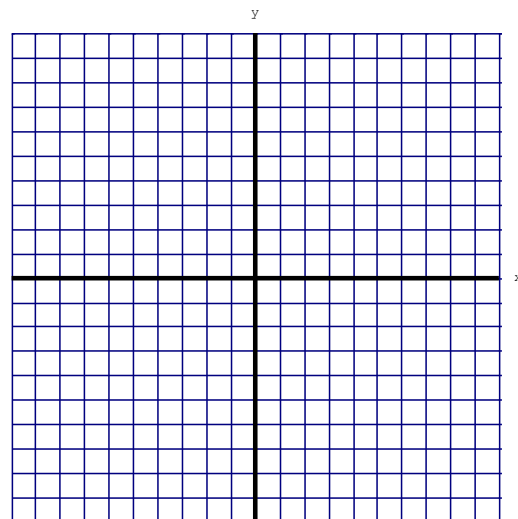
3. $y = \frac{5}{6}x - 4$

4. $2x - 9y = -18$



5. Solve the system of equations by graphing. Then confirm your answer by solving the system algebraically (using substitution or elimination).

$$\begin{cases} y = 6x + 9 \\ 5x - 3y = 12 \end{cases}$$



Unit 2 HW 23

Name _____ Date _____ Period _____

6. Mr. Belby, Mr. Sacco and Mrs. Pischke were having a discussion about whose pet hamster was the fastest. Mr. Belby's pet store hamster can run 0.5 mph. Mr. Sacco's pure-bread hamster can run 43 ft/min. Mrs. Pischke's runt of the litter hamster can run 0.25 m/s. Which hamster is the fastest? (Show work using dimension analysis)

7. If parallel lines have the SAME slope, and perpendicular lines have slopes that are OPPOSITE AND RECIPROCAL, are these lines parallel, perpendicular or neither?

$$\begin{cases} 12x - 2y = -18 \\ 5x - 3y = 12 \end{cases}$$

8. Write an equation for a line that would be parallel to $-7x - 3y = 9$. Perpendicular?

Simplify the expressions. Answers should contain only positive exponents.

9. $(2x^{-13})(-5x^4)$

10. $(3a^4b^2)^3(-4ab)$

11. $\frac{4c^{-5}d^2}{12c^3d^{-2}}$