

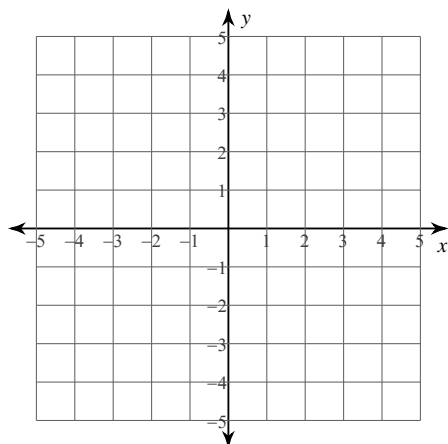
Review Homework 24.1

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Sketch the solution to each system of inequalities.

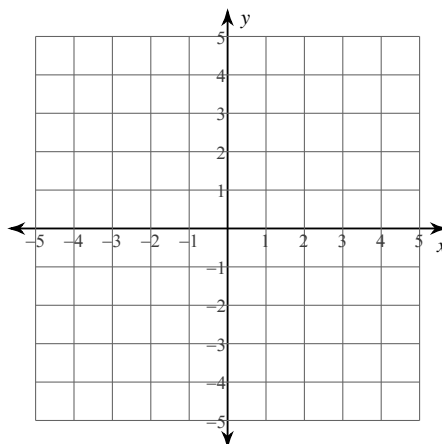
1) $y \leq \frac{1}{3}x - 1$

$y \geq \frac{5}{3}x + 3$



2) $y < \frac{3}{2}x - 1$

$y > \frac{1}{2}x + 1$

**Simplify each expression.**

3) $(2 - 8x^2 - 2x) - (4 + 6x^2 + 8x^4)$

4) $(3x^4 - 8 - 3x^2) + (x^4 - 3 + x^2)$

Find each product.

5) $(-4n + 6)(-3n + 2)$

6) $(8x + 5)^2$

Find the slope, x-intercept, and y-intercept of the following.

7) $x + 5y = 15$

8) $3x - 4y = 12$

Name the x- and y-intercepts.

9) $x = -3$

10) $y = 1$

11. Kali and Asanji are selling pies for a school fundraiser. Customers can buy blueberry pies and lemon meringue pies. Kali sold 10 blueberry pies and 9 lemon meringue pies for a total of \$192. Asanji sold 5 blueberry pies and 4 lemon meringue pies for a total of \$92. Write a system of equations that can be used to determine the cost of one blueberry pie (B) and one lemon meringue pie (L).

Answer _____

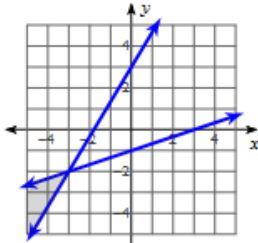
What is the cost of one blueberry pie?

Answer _____

12. Suppose you are starting an office-cleaning service. You have spent \$225 on equipment. To clean an office, you use \$4 worth of supplies. You charge \$29 per office. How many offices must you clean to break even?

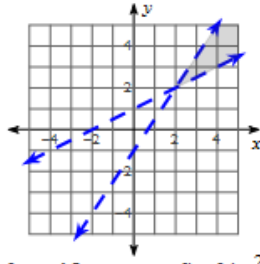
Answers to Review Homework 24.1

1)



4) $4x^4 - 2x^2 - 11$

2)



5) $12n^2 - 26n + 12$

6) $64x^2 + 80x + 25$

3) $-8x^4 - 14x^2 - 2x - 2$

7. $m = -1/5$, x -int = 15, y -int = 3

8. $m = 3/4$, x -int = 4, y -int = -3

9. x -int = -3, y -int = none

10. x -int = none, y -int = 1

11. $10B + 9L = 192$, $5B + 4L = 92$, $B = \$12$

12. $E(x) = 4x + 225$, $R(x) = 25x$, 9 offices