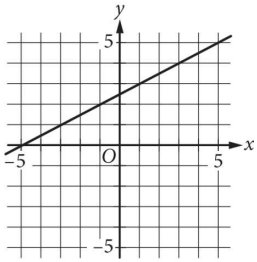
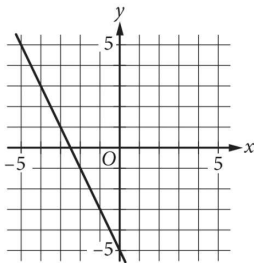


Which of the following is the graph of the equation  $y = 2x - 5$  in the  $xy$ -plane?

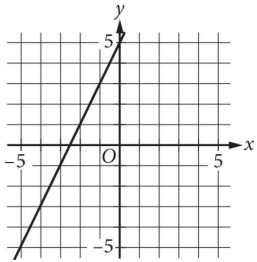
A.



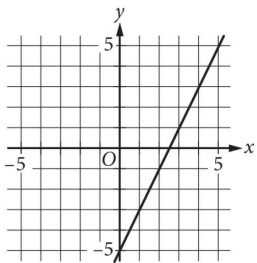
B.



C.



D.



ID: 7d6928bd

A cleaning service that cleans both offices and homes can clean at most **14** places per day. Which inequality represents this situation, where ***f*** is the number of offices and ***h*** is the number of homes?

A.  $f + h \leq 14$

B.  $f + h \geq 14$

C.  $f - h \leq 14$

D.  $f - h \geq 14$

$$2x + 7y = 9$$

$$8x + 28y = a$$

In the given system of equations,  $a$  is a constant. If the system has infinitely many solutions, what is the value of  $a$ ?

- A. 4
- B. 9
- C. 36
- D. 54

$$P(t) = 250 + 10t$$

The population of snow leopards in a certain area can be modeled by the function  $P$  defined above, where  $P(t)$  is the population  $t$  years after 1990. Of the following, which is the best interpretation of the equation  $P(30) = 550$  ?

- A. The snow leopard population in this area is predicted to be 30 in the year 2020.
- B. The snow leopard population in this area is predicted to be 30 in the year 2030.
- C. The snow leopard population in this area is predicted to be 550 in the year 2020.
- D. The snow leopard population in this area is predicted to be 550 in the year 2030.

A movie theater charges \$11 for each full-price ticket and \$8.25 for each reduced-price ticket. For one movie showing, the theater sold a total of 214 full-price and reduced-price tickets for \$2,145. Which of the following systems of equations could be used to determine the number of full-price tickets,  $f$ , and the number of reduced-price tickets,  $r$ , sold?

A.  $f+r=2,145$   
 $11f+8.25r=214$

B.  $f+r=214$   
 $11f+8.25r=2,145$

C.  $f+r=214$   
 $8.25f+11r=2,145$

D.  $f+r=2,145$   
 $8.25f+11r=214$

$$6x + k = 6x + 5$$

In the given equation,  $k$  is a constant. If the equation has infinitely many solutions, what is the value of  $k$ ?

An online bookstore sells novels and magazines. Each novel sells for \$4, and each magazine sells for \$1. If Sadie purchased a total of 11 novels and magazines that have a combined selling price of \$20, how many novels did she purchase?

- A. 2
- B. 3
- C. 4
- D. 5

ID: 174885f8

Jay walks at a speed of **3** miles per hour and runs at a speed of **5** miles per hour. He walks for  $w$  hours and runs for  $r$  hours for a combined total of **14** miles. Which equation represents this situation?

A.  $3w + 5r = 14$

B.  $\frac{1}{3}w + \frac{1}{5}r = 14$

C.  $\frac{1}{3}w + \frac{1}{5}r = 112$

D.  $3w + 5r = 112$



The function  $f$  is defined by  $f(x) = 5x + 8$ . For what value of  $x$  does  $f(x) = 58$ ?

- A. 10
- B. 13
- C. 50
- D. 298