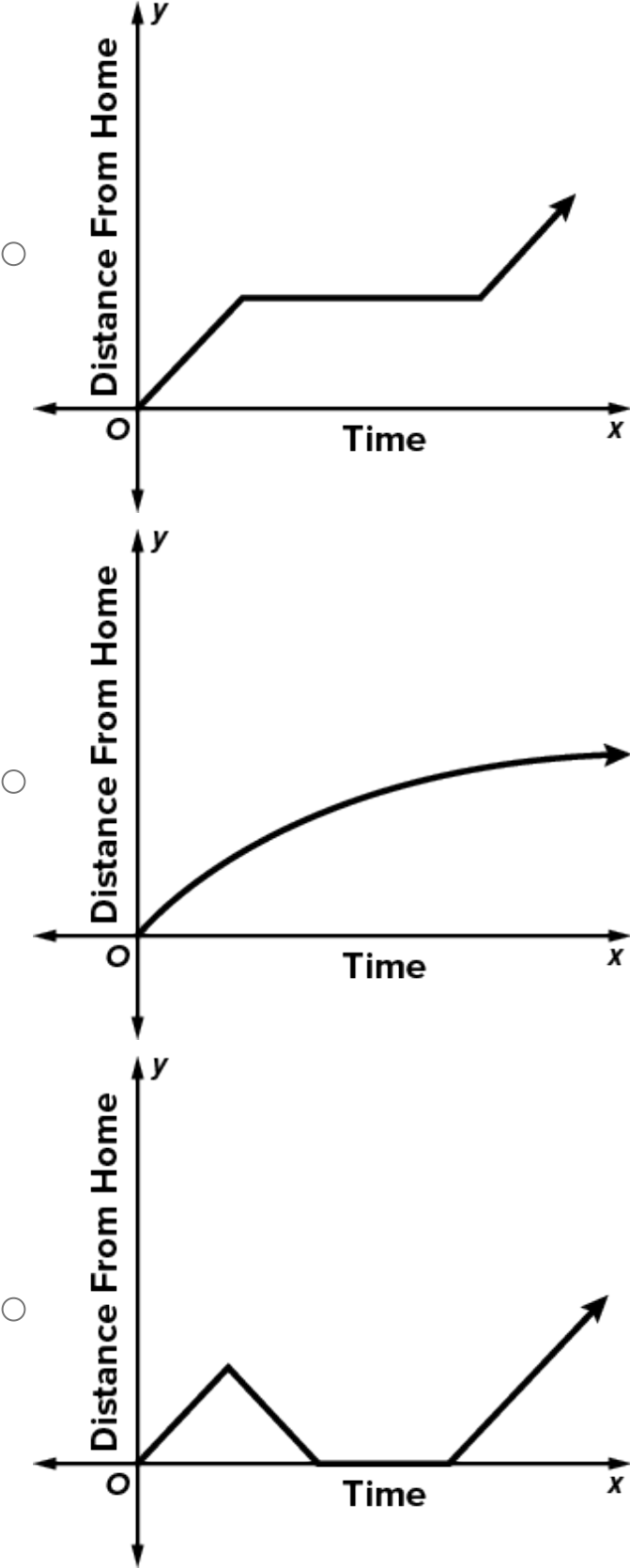


Ramadan

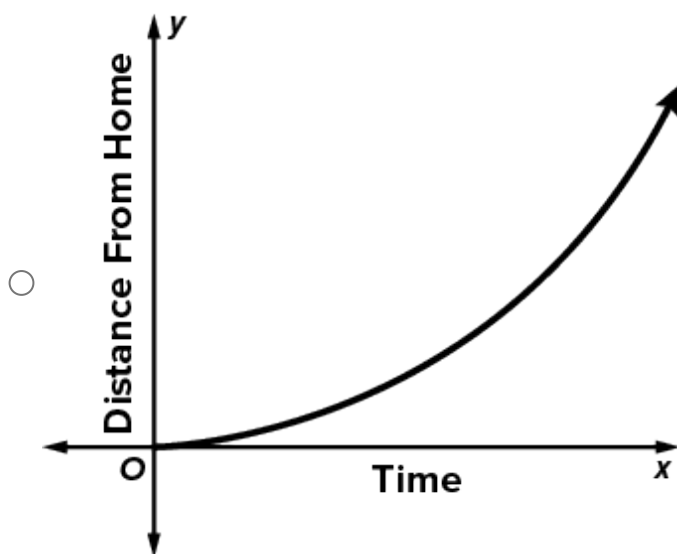
- 1) Which of the following does *not* represent a relation that is a function?
- ☐ The graph of the relation passes the vertical line test.
 - ☐ In a table of values, each input has exactly one output.
 - ☐ In a table of values, each input has one or more outputs.
 - ☐ The equation of the relation is in the form $y = mx$ or $y = mx + b$.
- 2) The amount of money, m , in dollars, a mail carrier earns to deliver mail to h houses each day is modeled by the function $m = 3h + 200$. What input values for h make sense in this situation?
- ☐ decimals
 - ☐ irrational numbers
 - ☐ rational numbers
 - ☐ whole numbers

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3) Dylan started slowly walking to school and then continued to increase the speed at which he walked until he finally made it to school. Which graph best represents this situation?



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4) Which point satisfies the system of equations?

$$y = -\frac{1}{2}x - \frac{1}{2}$$

$$y = -\frac{2}{3}x$$

- ☐ $(-2, 3)$
☐ $(-1, 0)$
☐ $(1, 2)$
☐ $(3, -2)$

5) Which point satisfies the system of equations?

$$y = 2x - 5$$

$$y = -3x + 7$$

- ☐ $(-2.4, 0.2)$
☐ $(2.4, -0.2)$
☐ $(-0.2, 2.4)$
☐ $(0.2, -2.4)$

6) Which best approximates the solution?

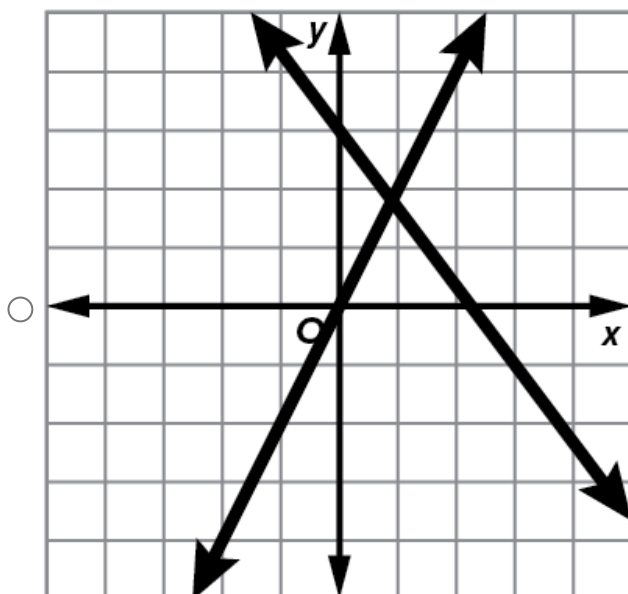
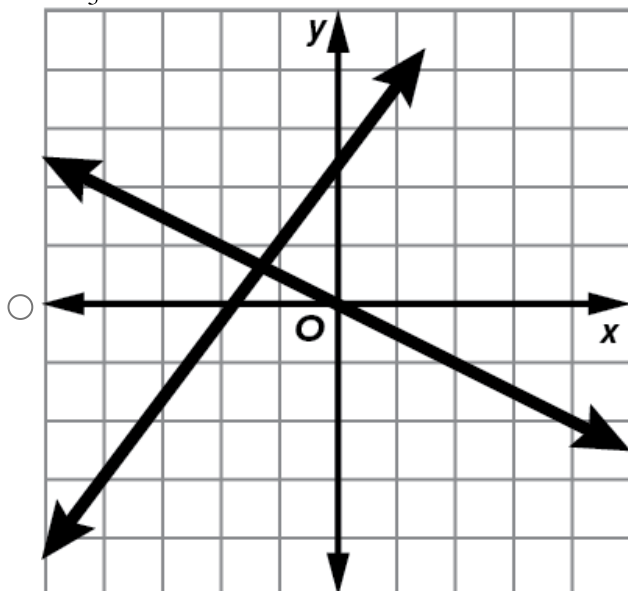
- ☐ $(-2.1, -1.9)$
☐ $(-1.9, -2.1)$
☐ $(2.1, 1.9)$
☐ $(1.9, 2.1)$

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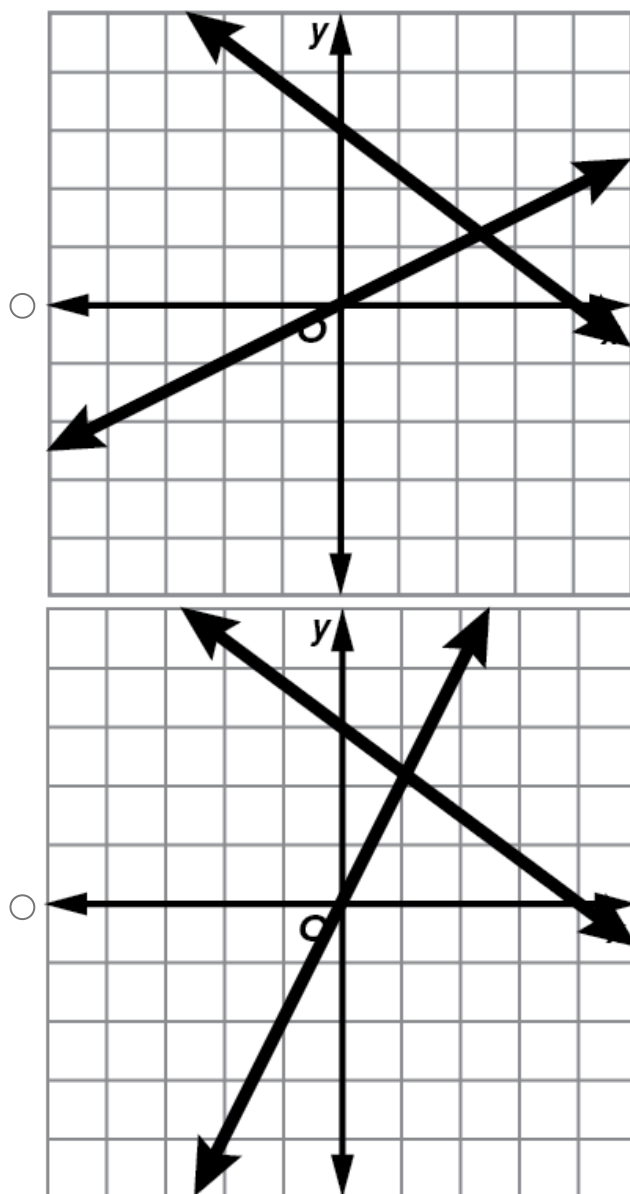
- 7) At a local coffee shop, if a customer purchases a monthly coffee club card for \$6 they will only pay \$0.75 for a cup of coffee. Customers who do not have a coffee club card must pay \$1.25 for a cup of coffee. For how many cups of coffee will the cost be the same for customers with and without a coffee club card? What will the cost be?
- ☐ For 9 cups of coffee the cost will be \$12.00 for both sets of customers.
 - ☐ For 12 cups of coffee the cost will be \$15.00 for both sets of customers.
 - ☐ For 12 cups of coffee the cost will be \$9.00 for both sets of customers.
 - ☐ For 15 cups of coffee the cost will be \$12.00 for both sets of customers.
- 8) At an electronics store, DVDs and CDs are on sale. The cost of a DVD is 3.2 times the cost of a CD, or \$8.50 less than 5 CDs. Which statement represents a system of equations that could be used to determine the cost of a DVD and a CD, in dollars?
- ☐ The system of equations is $d = 5c$ and $d = 3.2c - 8.50$, for c , the cost of a CD, and d , the cost of a DVD.
 - ☐ The system of equations is $d = 5c$ and $d = 3.2c + 8.50$, for c , the cost of a CD, and d , the cost of a DVD.
 - ☐ The system of equations is $d = 3.2c$ and $d = 5c - 8.50$, for c , the cost of a CD, and d , the cost of a DVD.
 - ☐ The system of equations is $d = 3.2c$ and $d = 5c + 8.50$, for c , the cost of a CD, and d , the cost of a DVD.
- 9) Bella and Justin opened new bank accounts. Bella opens an account that has a \$3 monthly service fee and charges \$1.50 each time she makes a withdrawal with her bank card. Justin opens an account that does not have a monthly service fee, but charges \$2 each time he makes a withdrawal with his bank card. Which system of equations could be used to determine how many withdrawals, w , Bella and Justin must make so that the monthly cost, C , of the accounts is the same?
- ☐ $C = 1.50w + 2$
 - ☐ $C = 3w$
 - ☐ $C = 1.50w + 3$
 - ☐ $C = 2w$
 - ☐ $C = 2w + 1.50$
 - ☐ $C = 3w$
 - ☐ $C = 3w + 1.50$
 - ☐ $C = 2w$

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- 10) Which graph could be used to approximate the solutions of the system of equations? $y = 2x$ and $y = -\frac{4}{3}x + 3$.



Ramadan



11) Which best approximates the solution?

- ☐ $(-1.6, 0.8)$
- ☐ $(0.9, 1.8)$
- ☐ $(2.4, 1.2)$
- ☐ $(1.1, 2.2)$

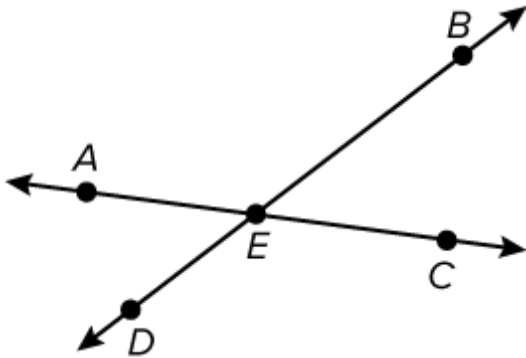
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12) Xavier drives from Westport to Eastport. Fay is driving on the same road to Westport. The equations in the table model the situation, where t represents the number of hours and d represents the distance, in miles, from Eastport. Which statement describes how many hours till the drivers will be the same distance from Eastport?

Xavier	Fay
$d = -45t + 120$	$d = 45t + 15$

- ☐ After about 1.2 hours, both drivers will be about 64 miles from Westport.
- ☐ After about 64 hours, both drivers will be about 1.2 miles from Westport.
- ☐ After about 1.2 hours, both drivers will be about 64 miles from Eastport.
- ☐ After about 64 hours, both drivers will be about 1.2 miles from Eastport.

13) What is another name for $\angle DEC$ in the figure?



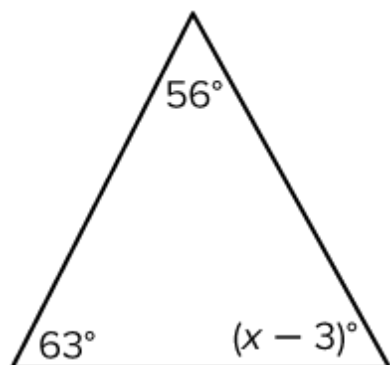
- ☐ $\angle AEB$
- ☐ $\angle CED$
- ☐ $\angle DCE$
- ☐ $\angle EBD$

14) What is the measure of each interior angle of a 12-sided regular polygon?

- ☐ 15°
- ☐ 30°
- ☐ 120°
- ☐ 150°

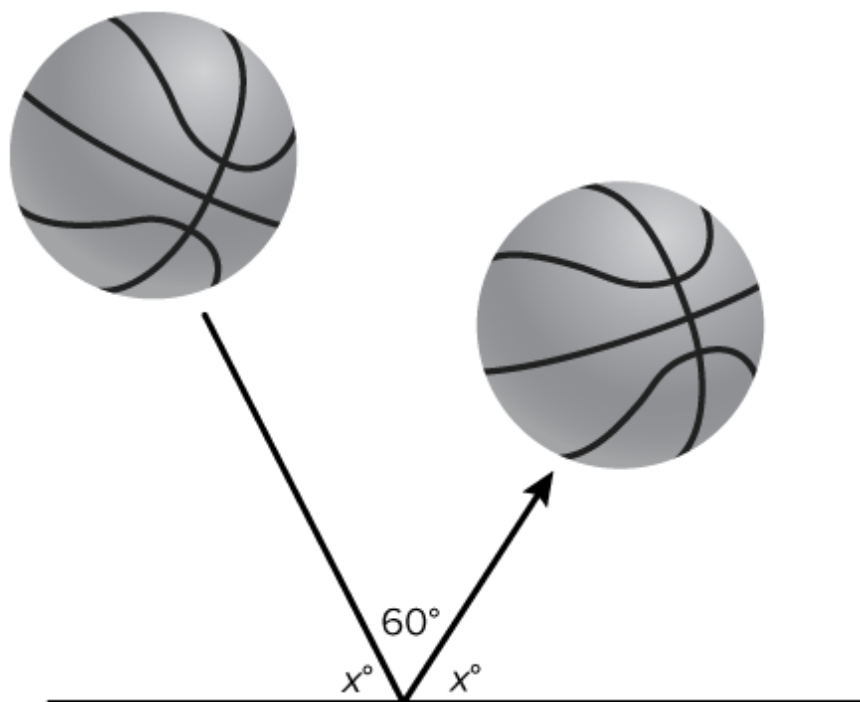
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- 15) What is the value of x in the figure?



- ☐ 53
☐ 60
☐ 64
☐ 90

- 16) When a basketball hits a hard, level surface, it bounces off the floor at the same angle at which it hits the floor, as shown. What is the value of x , the angle at which the ball hits the floor and bounces?



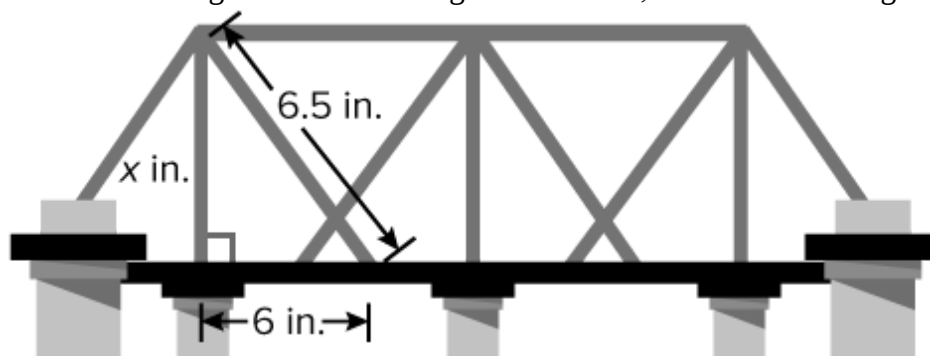
- ☐ 58
☐ 60
☐ 62
☐ 90

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17) Which statement justifies your answer?

- ☐ $959^2 + 1,011^2 \neq 1,033^2$
- ☐ $1,033^2 + 1,011^2 \neq 959^2$
- ☐ $959^2 + 1,011^2 = 1,033^2$
- ☐ $1,033^2 + 1,011^2 = 959^2$

18) Blake is building a model of a bridge out of wood, as shown in the figure.



He needs to cut a piece of wood for one of the vertical support beams. What length should he cut?

- ☐ 8.8 in.
- ☐ 3 in.
- ☐ 2.5 in.
- ☐ 0.5 in.

19) Bryan has three pieces of string measuring 12 centimeters, 43 centimeters, and 30 centimeters. Can the pieces of string form a triangle?

- ☐ no, because $12+30<43$
- ☐ no because $43+30>12$
- ☐ yes, because $12+30<43$
- ☐ yes, because $43+12>30$