تم تحميل هذا الملف من موقع المناهج الإماراتية

ملزمة وفق الهيكل الوزاري منهج ريفيل

موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف التاسع العام ⇦ رياضيات ⇦ الفصل الثاني ⇦ ملخصات وتقارير ⇦ الملف

تاريخ إضافة الملف على موقع المناهج: 2025-02-18 12:46:53

المزيد من مادة رياضيات:	ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

التواصل الاجتماعي بحسب الصف التاسع العام

صفحة المناهج الإماراتية على فيسبوك					
المواد على تلغرام	التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات	

المزيد من الملفات بحسب الصف التاسع العام والمادة رياضيات في الفصل الثاني

1	حل أوراق عمل الوحدة السادسة أنظمة المعادلات والمتباينات الخطية
2	الخطة الفصلية للمقرر للعام 2024-2025
3	أسئلة الامتحان النهائي الورقي ريفيل
4	أسئلة الامتحان النهائي الورقي بريدج
5	حل تجميعة كاملة وفق الهيكل الوزاري بريدج

EOT COVERAGE

Term 2

G9

Question* / ال سؤا ل*	Learning Outcome/Performance Criteria** / نا تج التعلم/ معايير الأداء**	Reference(s) in the Student Book + (English Version) / المرجع في كتاب الطالب)النسخة العربية(+)النسخة الانجليزية(	
		Example/Exercise / مثال/تمرين	Page / الصفحة
1	Solve various systems of linear equations by using substitution	Check, Example 2,3	400-401
		1-15	403
2	Solve systems of equations by using elimination with addition and subtraction	15-27	409
3	Solve systems of equations by using elimination with addition and subtraction	28-30	410
		33-38	
4	Solve system of inequalities by graphing	1-6 and 15-17	423
		15-16	428
5	Determine the number of solutions to a system of linear equations, if any	11-16	395
6	Identify intersecting lines and planes.	20-28	566
7	Calculate with measures	34-38	575
8	Find the distance between two points using the distance formula	31-40	583
9	Find a point on a directed line segment on a number line that is a given fractional distance from the initial point	15-21	590
10	Find missing values using the definition of a segment bisector	Example 6	603
		39-48	606
11	Analyze figures using the definitions of angles and parts of angles	15-17	622
		34-36	623
12	Find perimeter, circumference, and area of two-dimensional figures	1-6	641
13	Find the surface area of a cylinder using models and nets	9-12	676
14	Draw isometric views of three-dimensional figures	1-8	675
15	Calculate with measures	14-20	643

MCQ - الأسئلة الموضوعية

1	Solve various systems of linear equations by using substitution	Check, Example 2,3	400-401
		1-15	403

Example 2 Solve and Then Substitute

Use substitution to solve the system of equations.

$5x - 3y = -25$
$x + 4y = 18$

Step 1 Solve the second equation for x since the coefficient is 1.

$x + 4y = 18$	Second equation
$x = 18 - 4y$	Subtract $4y$ from each side.

Step 2 Substitute $18 - 4y$ for x in the first equation.

$5x - 3y = -25$	First equation
$5(18 - 4y) - 3y = -25$	Substitute $18 - 4y$ for x.
$90 - 20y - 3y = -25$	Distributive Property
$90 - 23y = -25$	Combine like terms.
$-23y = -115$	Subtract 90 from each side.
$y = 5$	Divide each side by -23.

Step 3 Substitute 5 for y in either equation to find x.

$x + 4y = 18$	Second equation
$x + 4(5) = 18$	Substitute 5 for y.
$x + 20 = 18$	Simplify.
$x = -2$	Subtract 20 from each side.

The solution is $(-2, 5)$.

Example 3 Use Substitution When There are No or Many Solutions

Use substitution to solve the system of equations.

$4x + 2y = -8$

$y = -2x - 4$

Substitute $-2x - 4$ for y in the first equation.

$4x + 2y = -8$	First equation
$4x + 2(-2x - 4) = -8$	Substitute $-2x - 4$ for y.
$4x - 4x - 8 = -8$	Distributive Property
$-8 = -8$	Simplify.

The equation $-8 = -8$ is an identity. Thus, there are an infinite number of solutions.

When graphed, the equations are the same line.

G9

1	Solve various systems of linear equations by using substitution	Check, Example 2,3	400-401
		1-15	403

1. $y = 5x + 1$
$4x + y = 10$

2. $y = 4x + 5$
$2x + y = 17$

3. $y = 3x - 34$
$y = 2x - 5$

4. $y = 3x - 2$
$y = 2x - 5$

5. $2x + y = 3$
$4x + 4y = 8$

6. $3x + 4y = -3$
$x + 2y = -1$

7. $y = -3x + 4$
$-6x - 2y = -8$

8. $-1 = 2x - y$
$8x - 4y = -4$

9. $x = y - 1$
$-x + y = -1$

1	Solve various systems of linear equations by using substitution	Check, Example 2,3	400-401
		1-15	403

10. $y = -4x + 11$
$3x + y = 9$

11. $y = -3x + 1$
$2x + y = 1$

12. $3x + y = -5$
$6x + 2y = 10$

13. $5x - y = 5$
$-x + 3y = 13$

14. $2x + y = 4$
$-2x + y = -4$

15. $-5x + 4y = 20$
$10x - 8y = -40$

15. $x + 4y = 11$
$x - 6y = 11$

16. $-x + 3y = 6$
$x + 3y = 18$

17. $3x + 4y = 19$
$3x + 6y = 33$

18. $x + 4y = -8$
$x - 4y = -8$

19. $3x + 4y = 2$
$4x - 4y = 12$

20. $3x - y = -1$
$-3x - y = 5$

21. $2x - 3y = 9$
$-5x - 3y = 30$

22. $x - y = 4$
$2x + y = -4$

23. $3x - y = 26$
$-2x - y = -24$

2	Solve systems of equations by using elimination with addition and subtraction	15-27	409

24. $5x - y = -6$
$-x + y = 2$

25. $6x - 2y = 32$
$4x - 2y = 18$

26. $3x + 2y = -19$
$-3x - 5y = 25$

27. $7x + 4y = 2$
$7x + 2y = 8$

3	Solve systems of equations by using elimination with addition and subtraction	28-30 33-38	410

28. Twice a number added to another number is 15. The sum of the two numbers is 11. Find the numbers.

29. Twice a number added to another number is –8. The difference of the two numbers is 2. Find the numbers.

30. The difference of two numbers is 2. The sum of the same two numbers is 6. Find the numbers.

3	Solve systems of equations by using elimination with addition and subtraction	28-30 33-38	410

Use elimination to solve each system of equations.

33. $4(x + 2y) = 8$
$4x + 4y = 12$

34. $3x - 5y = 11$
$5(x + y) = 5$

35. $4x + 3y = 6$
$3(x + y) = 7$

36. $0.3x - 2y = -28$
$0.8x + 2y = 28$

37. $\frac{1}{2}q - 4r = -2$
$\frac{1}{6}q - 4r = 10$

38. $\frac{1}{2}x + \frac{1}{3}y = -1$
$-\frac{1}{2}x + \frac{2}{3}y = 10$

4	Solve system of inequalities by graphing	1-6 and 15-17	423
		15-16	428

Solve each system of inequalities by graphing.

1. $y < 6$
$y > x + 3$

2. $y \geq 0$
$y \leq x - 5$

6. $y \geq 3x - 5$
$3x - y > -4$

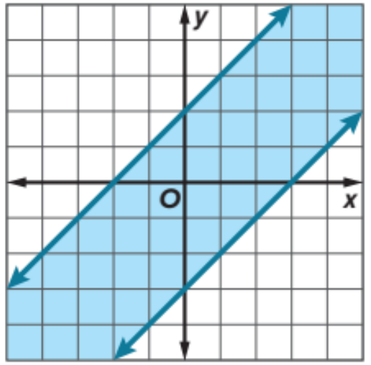
4. $y \geq x + 10$
$y \leq x - 3$

5. $y < 5x - 5$
$y > 5x + 9$

4	Solve system of inequalities by graphing	1-6 and 15-17	423
		15-16	428

Write a system of inequalities for each graph.

15.



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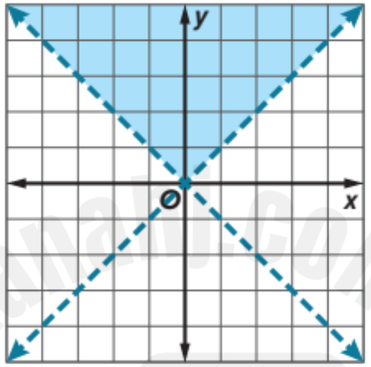

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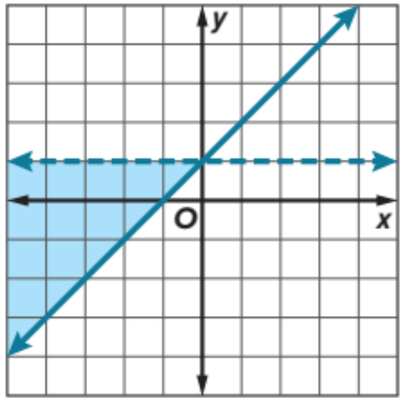
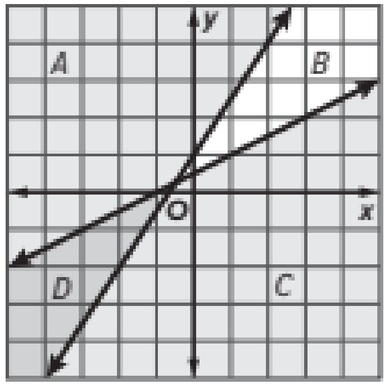


4	Solve system of inequalities by graphing	1-6 and 15-17	423
		15-16	428

15. MULTIPLE CHOICE The graph shows the solution to the given system of inequalities. (Lesson 7-5)

$-x + 2y \leq 1$
$-3x + 2y \geq 2$



In what region is the solution set?

A. A

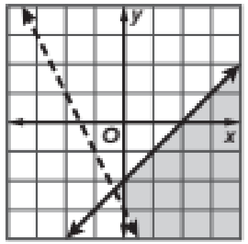
B. B

C. C

D. D

16. MULTIPLE CHOICE Which graph represents the solution of the system of inequalities? (Lesson 7-5)

$x - y \geq 2$
$2x + y > -3$

A.


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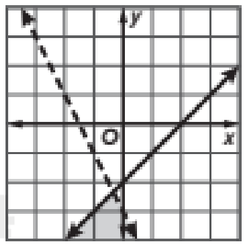

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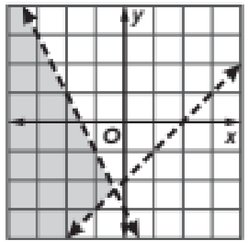
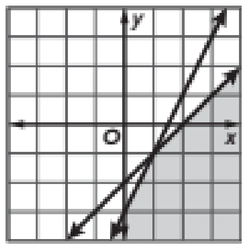


D.


Graph each system and determine the number of solutions it has. If it has one solution, determine its coordinates.

11. $y = -3$
$y = x - 3$

12. $y = 4x + 2$
$y = -2x - 4$

13. $y = x - 6$
$y = x + 2$

14. $x + y = 4$
$3x + 3y = 12$

15. $x - y = -2$
$-x + y = 2$

16. $2x + 3y = 12$
$2x - y = 4$

6	Identify intersecting lines and planes.	20-28	566

USE TOOLS **Draw and label a figure for each relationship.**

20. Points X and Y lie on $\overleftrightarrow{CD}$.

21. Two planes do not intersect.

22. Line m intersects plane R at a single point.

23. Three lines intersect at point J but do not all lie in the same plane.

24. Points $A(2, 3)$, $B(2, -3)$, C, and D are collinear, but A, B, C, D, and F are not.

6	Identify intersecting lines and planes.	20-28	566

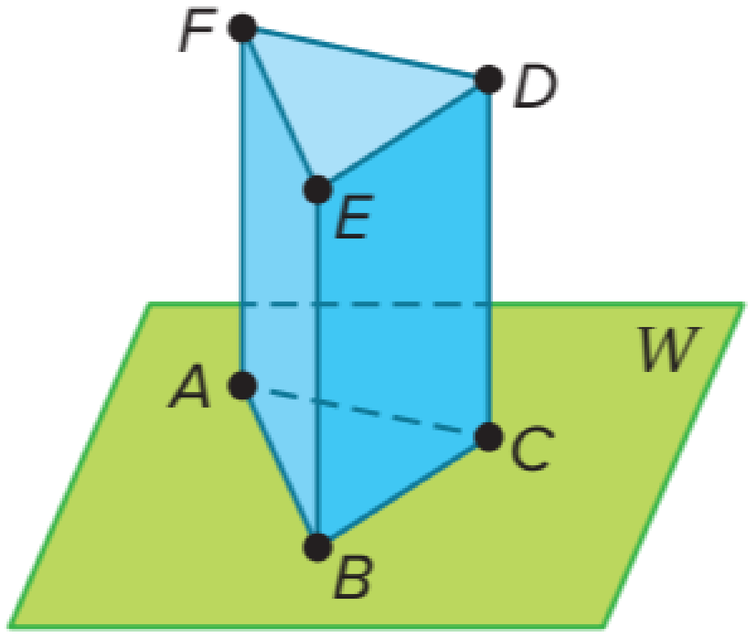
Refer to the figure for Exercises 25–28.

25. How many planes are shown in the figure?

26. How many of the planes contain points *F* and *E*?

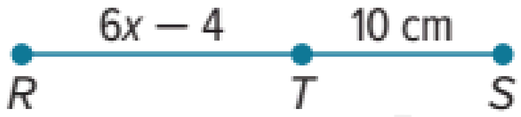
27. Name four points that are coplanar.

28. Are points *A*, *B*, and *C* coplanar? Explain.



7	Calculate with measures	34-38	575

34. Find the length of $\overline{UW}$ if W is between U and V, $UV = 16.8$ centimeters, and $VW = 7.9$ centimeters.

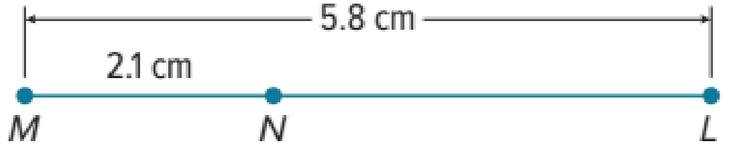


35. Find the value of x if $RS = 24$ centimeters.

36. Find the length of $\overline{LO}$ if M is between L and O, $LM = 7x - 9$, $MO = 14$ inches, and $LO = 10x - 7$.

37. Find the value of x if $\overline{PQ} \cong \overline{RS}$, $PQ = 9x - 7$, and $RS = 29$.

38. Find the measure of $\overline{NL}$.



8	Find the distance between two points using the distance formula	31-40	583

Find the distance between each pair of points. Round to the nearest tenth, if necessary.

31. $M(-4, 9), N(-5, 3)$

32. $C(2, 4), D(5, 7)$

33. $A(5, 1), B(3, 6)$

34. $V(4, 4), X(5, 8)$

35. $S(6, 4), T(3, 2)$

36. $M(-1, 8), N(-3, 3)$

8	Find the distance between two points using the distance formula	31-40	583

Find the distance between each pair of points. Round to the nearest tenth, if necessary.

37. $W(-8, 1)$, $Y(0, 6)$

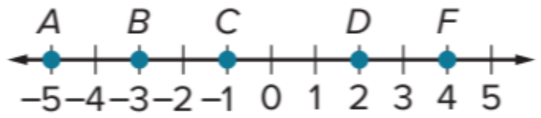
38. $B(3, -4)$, $C(5, -5)$

39. $R(6, 11)$, $T(3, -7)$

40. $A(-3, 8)$ and $B(-1, 4)$

9	Find a point on a directed line segment on a number line that is a given fractional distance from the initial point	15-21	590

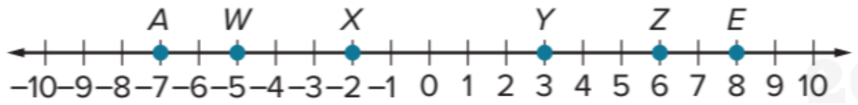
Refer to the number line.



15. Find the coordinate of point X on $\overline{AF}$ that is $\frac{1}{3}$ of the distance from A to F.

16. Find the coordinate of point Y on $\overline{AC}$ that is $\frac{1}{4}$ of the distance from A to C.

Refer to the number line.



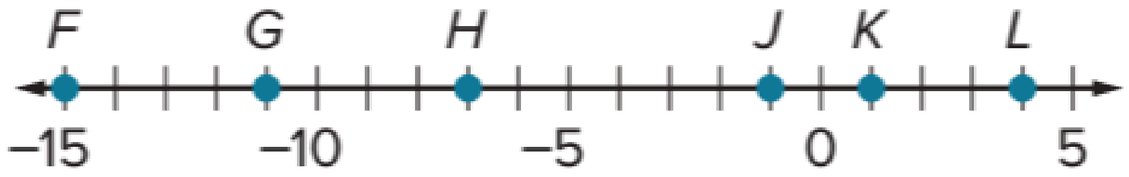
17. Which point on $\overline{AE}$ is $\frac{2}{3}$ of the distance from A to E?

18. Point X is what fractional distance from E to A?

19. Find the coordinate of point M on $\overline{AE}$ that is $\frac{1}{5}$ of the distance from A to E.

9	Find a point on a directed line segment on a number line that is a given fractional distance from the initial point	15-21	590

Refer to the number line.



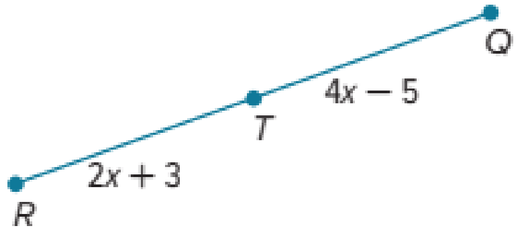
20. The ratio of FX to XK is 1:1. Which point is located at X?

21. Find the coordinate of Q on $\overline{FL}$ such that the ratio of FQ to QL is 12:7.

10	Find missing values using the definition of a segment bisector	Example 6	603
		39-48	606

Example 5 Find Missing Measures

Find the measure of $\overline{RT}$ if T is the midpoint of $\overline{RQ}$.



Because T is the midpoint, $RT = TQ$. Use this equation to solve for x.

$RT = TQ$	Definition of midpoint
$2x + 3 = 4x - 5$	Substitution
$3 = 2x - 5$	Subtract $2x$ from each side.
$8 = 2x$	Add 5 to each side.
$4 = x$	Divide each side by 2.

Substitute 4 for x in the equation for RT.

$RT = 2x + 3$	Equation for RT
$= 2(4) + 3$	Substitution
$= 11$	Simplify.

Example 6 Find the Total Length

Find the measure of $\overline{AC}$ if B is the midpoint of $\overline{AC}$.

Because B is the midpoint, $AB = BC$. Use this equation to solve for x.

$AB = BC$	Definition of midpoint
$5x - 3 = 2x + 9$	Substitution
$3x - 3 = 9$	Subtract $2x$ from each side.
$3x = 12$	Add 3 to each side.
$x = 4$	Divide each side by 3.

The length of $\overline{AC}$ is equal to the sum of AB and BC. So, to find the length of $\overline{AC}$, substitute 4 for x in the expression $5x - 3 + 2x + 9$.

$AC = 5x - 3 + 2x + 9$	Length of $\overline{AC}$
$= 5(4) - 3 + 2(4) + 9$	$x = 4$
$= 20 - 3 + 8 + 9$	Multiply.
$= 34$	Simplify.

The measure of $\overline{AC}$ is 34.

10	Find missing values using the definition of a segment bisector	Example 6	603
		39-48	606

Suppose *M* is the midpoint of $\overline{FG}$. Find each missing measure.

39. $FM = 5y + 13, MG = 5 - 3y, FG = ?$

40. $FM = 3x - 4, MG = 5x - 26, FG = ?$

41. $FM = 8a + 1, FG = 42, a = ?$

42. $MG = 7x - 15, FG = 33, x = ?$

43. $FM = 3n + 1, MG = 6 - 2n, FG = ?$

44. $FM = 12x - 4, MG = 5x + 10, FG = ?$

10	Find missing values using the definition of a segment bisector	Example 6	603
		39-48	606

Suppose *M* is the midpoint of $\overline{FG}$. Find each missing measure.

45. $FM = 2k - 5, FG = 18, k = ?$

46. $FG = 14a + 1, FM = 14.5, a = ?$

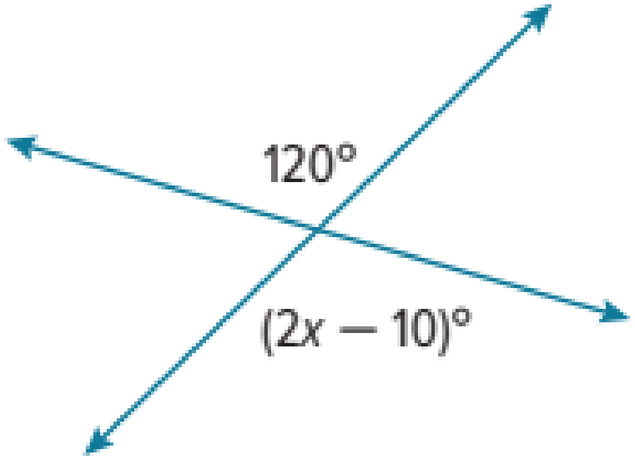
47. $MG = 13x + 1, FG = 15, x = ?$

48. $FG = 11x - 15.6, MG = 10.9, x = ?$

11	Analyze figures using the definitions of angles and parts of angles	15-17	622
		34-36	623

Find the value of each variable.

15.



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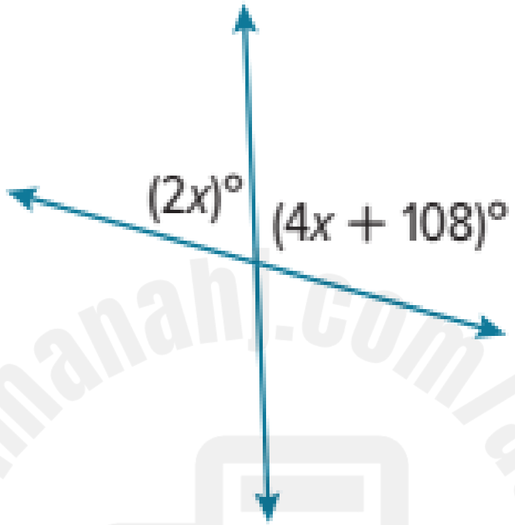

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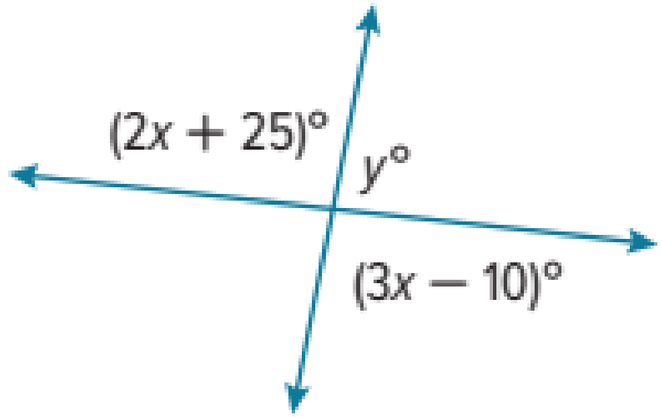
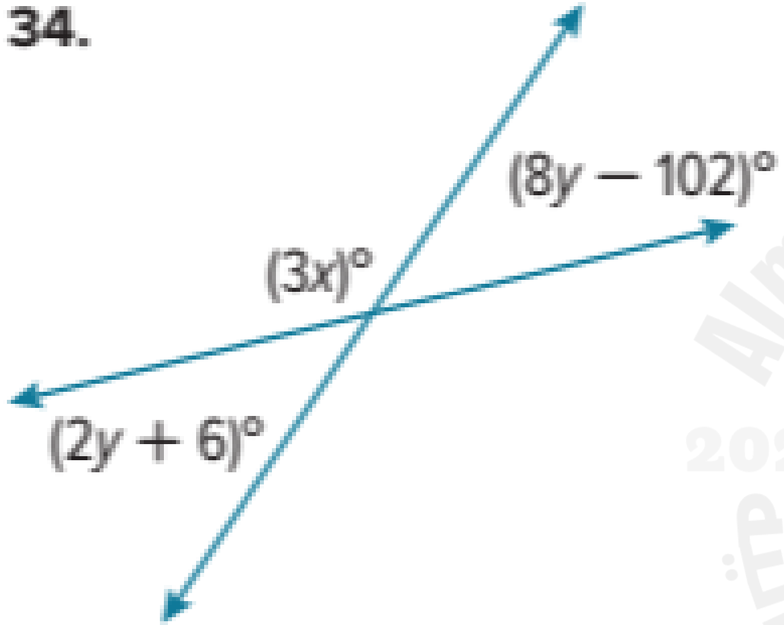


11	Analyze figures using the definitions of angles and parts of angles	15-17	622
		34-36	623

Find the value of each variable.

34.



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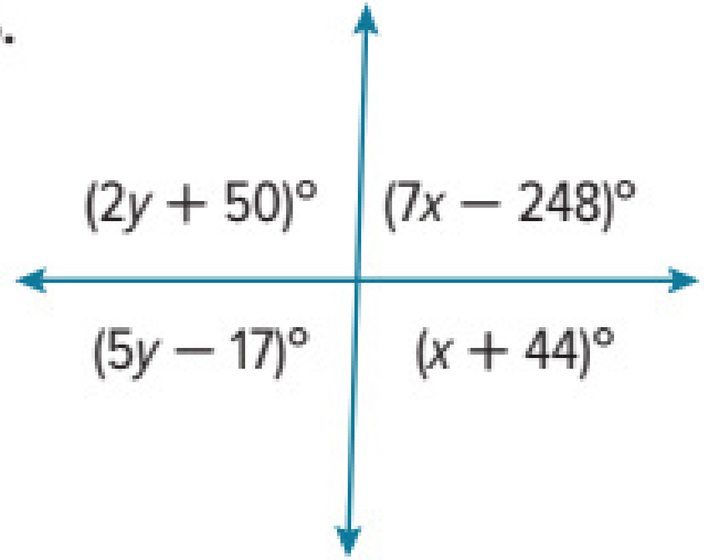
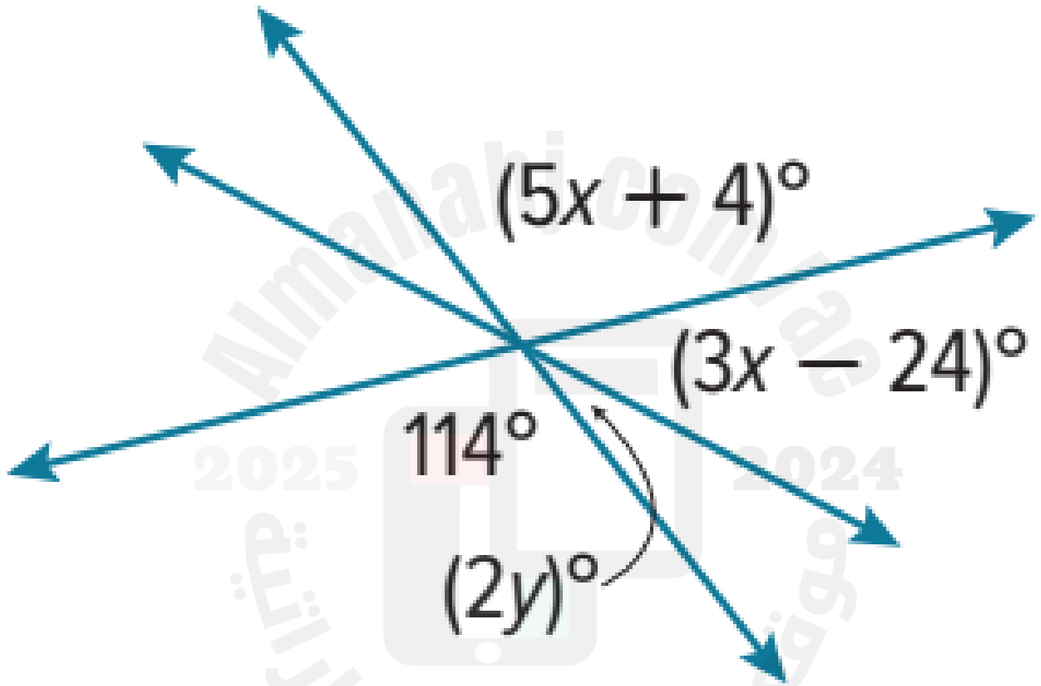


11	Analyze figures using the definitions of angles and parts of angles	15-17	622
		34-36	623

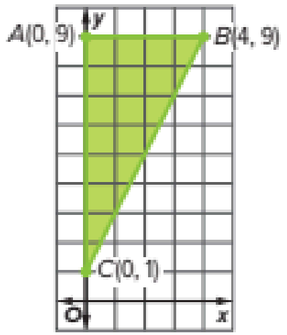
Find the value of each variable.

36.



Find the perimeter or circumference and area of each figure if each unit on the graph measures 1 centimeter. Round answers to the nearest tenth, if necessary.

1.



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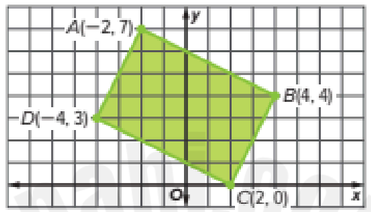

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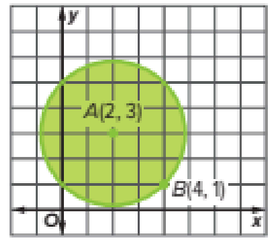

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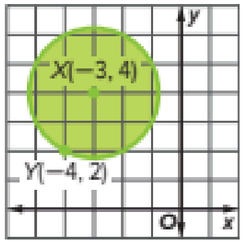

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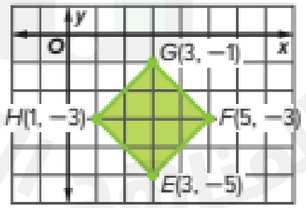

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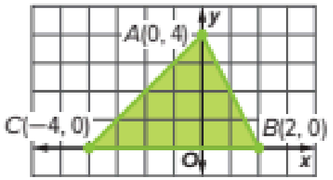
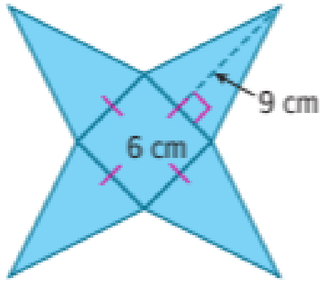


Make a model of the solid that is represented by each net. Then identify the solid and find its surface area.

9.



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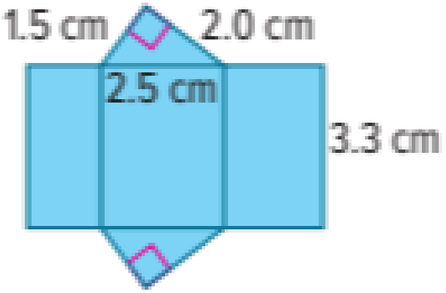

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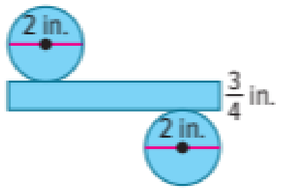

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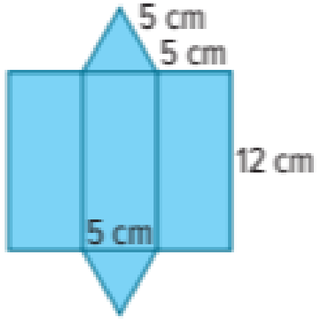
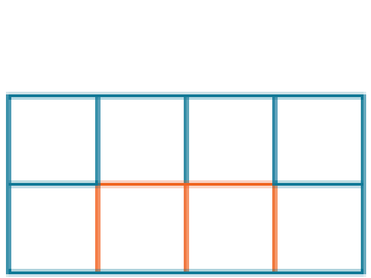


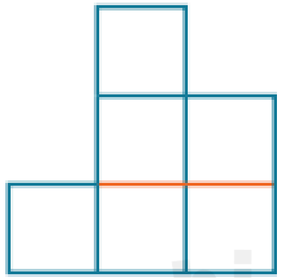
14	Draw isometric views of three-dimensional figures	1-8	675

Make a model of a figure for each orthographic drawing.

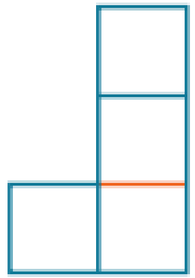
1.



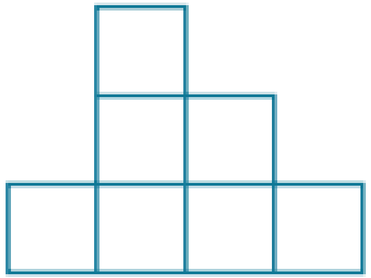
top view



left view

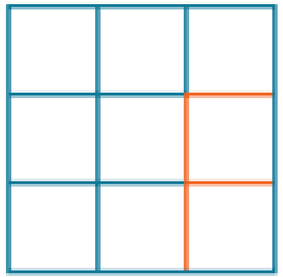


front view

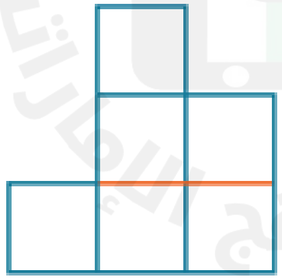


right view

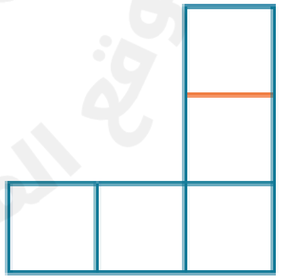
2.



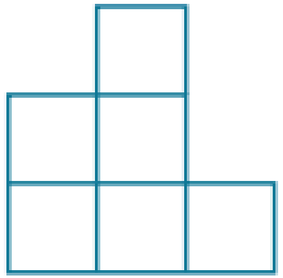
top view



left view



front view

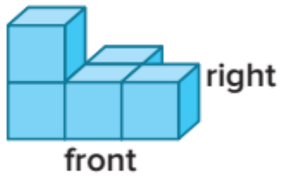


right view

14	Draw isometric views of three-dimensional figures	1-8	675

Make an orthographic drawing of each figure.

3.



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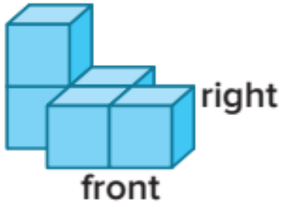
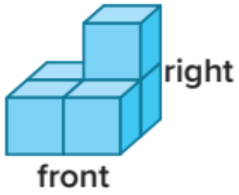


5.



6.

7.

8.

Identify the figure with the given vertices. Find the perimeter and area of the figure.

14. $A(3, 5)$, $B(3, 1)$, $C(0, 1)$

15. $Q(-3, 2)$, $R(1, 2)$, $S(1, -4)$, $T(-3, -4)$

16. $G(-4, 1)$, $H(4, 1)$, $I(0, -2)$

17. $K(-1, 1)$, $L(3, 4)$, $M(6, 0)$, $N(2, -3)$

18. Rectangle *WXYZ* has a length that is 5 more than three times its width.

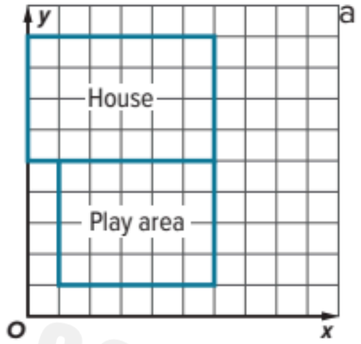
a. Draw and label a figure for rectangle *WXYZ*.

b. Write an algebraic expression for the perimeter of the rectangle.

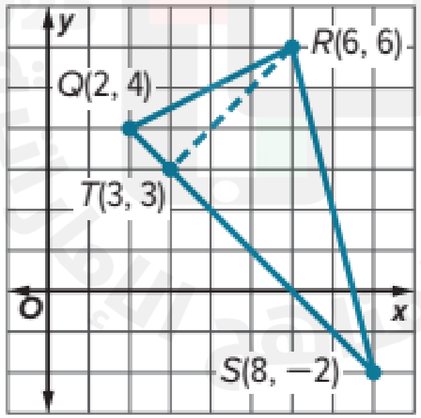
c. Find the width if the perimeter is 58 millimeters. Explain how you can check that your answer is correct.

d. Use a ruler to draw and label $\overline{PQ}$, which is congruent to the segment representing the length of rectangle *WXYZ*. What is the measure of $\overline{PQ}$?

19. **FENCING** The figure shows Derek's house and his backyard on coordinate grid. Derek is planning to fence in the play area in his backyard. Part of the play area is enclosed by the house and does not need to be fenced. Each unit on the coordinate grid represents 5 feet. The cost for the fencing materials and installation is $10 per foot. How much will it cost Derek to install the fence? Explain.



20. Explain a method to find the area of $\triangle QRS$ given that $\overline{RT} \perp \overline{QS}$. Then find the area. Show your work.



FRQ - الأسئلة المقالية				
	16	Solve systems of equations by using elimination with multiplication	1-12	417
	17	Solve linear equations by graphing	11-16	395
	18	Find the midpoint of a segment	Example 3	601
			19-30	606
	19	Find surface area and volume of three-dimensional figures	7-12	663
	20	Identify two complementary angles and two supplementary angles and find the measure of missing angles	15-19	632

Use elimination to solve each system of equations.

1. $x + y = 2$
$-3x + 4y = 15$

2. $x - y = -8$
$7x + 5y = 16$

3. $x + 5y = 17$
$-4x + 3y = 24$

4. $6x + y = -39$
$3x + 2y = -15$

5. $2x + 5y = 11$
$4x + 3y = 1$

6. $3x - 3y = -6$
$-5x + 6y = 12$

Use elimination to solve each system of equations.

7. $3x + 4y = 29$
$6x + 5y = 43$

8. $8x + 3y = 4$
$-7x + 5y = -34$

9. $8x + 3y = -7$
$7x + 2y = -3$

10. $4x + 7y = -80$
$3x + 5y = -58$

11. $12x - 3y = -3$
$6x + y = 1$

12. $-4x + 2y = 0$
$10x + 3y = 8$

Graph each system and determine the number of solutions it has. If it has one solution, determine its coordinates.

11. $y = -3$
$y = x - 3$

12. $y = 4x + 2$
$y = -2x - 4$

13. $y = x - 6$
$y = x + 2$

14. $x + y = 4$
$3x + 3y = 12$

Graph each system and determine the number of solutions it has. If it has one solution, determine its coordinates.

15. $x - y = -2$
$-x + y = 2$

16. $2x + 3y = 12$
$2x - y = 4$

Example 3 Find the Midpoint on the Coordinate Plane

Find the coordinates of *M*, the midpoint of $\overline{AB}$, for *A*(−2, 1) and *B*(8, 3).

$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$$ Midpoint Formula

$$= \left(\frac{-2 + 8}{2}, \frac{1 + 3}{2}\right)$$ Substitution

$$= \left(\frac{6}{2}, \frac{4}{2}\right) \text{ or } (3, 2)$$ Simplify.

18	Find the midpoint of a segment	Example 3	601
		19-30	606

Find the coordinates of the midpoint of a segment with the given endpoints.

19. (5, 11), (3, 1)

20. (7, −5), (3, 3)

21. (−8, −11), (2, 5)

22. (7, 0), (2, 4)

23. (−5, 1), (2, 6)

24. (−4, −7), (12, −6)

18	Find the midpoint of a segment	Example 3	601
		19-30	606

Find the coordinates of the midpoint of a segment with the given endpoints.

25. (2, 8), (8, 0)

26. (9, −3), (5, 1)

27. (22, 4), (15, 7)

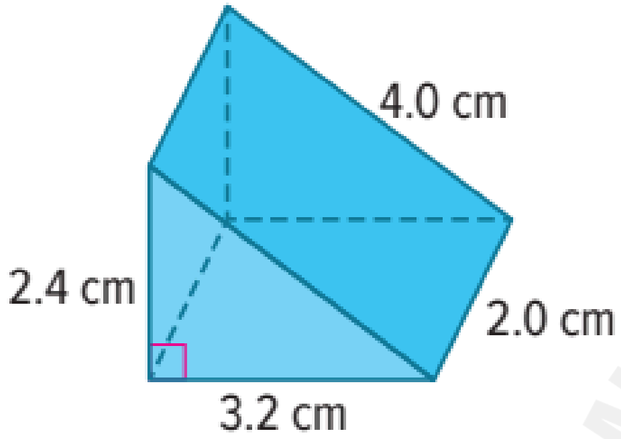
28. (12, 2), (7, 9)

29. (−15, 4), (2, −10)

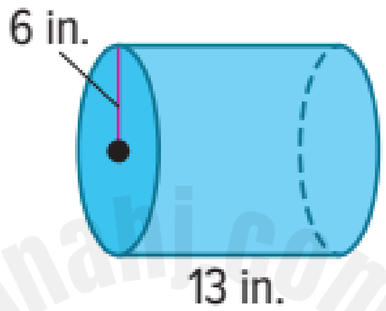
30. (−2, 5), (3, −17)

Find the surface area and volume of each solid. Round each measure to the nearest tenth, if necessary.

7.



8.



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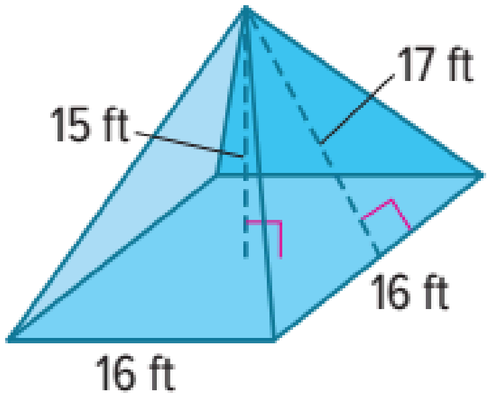
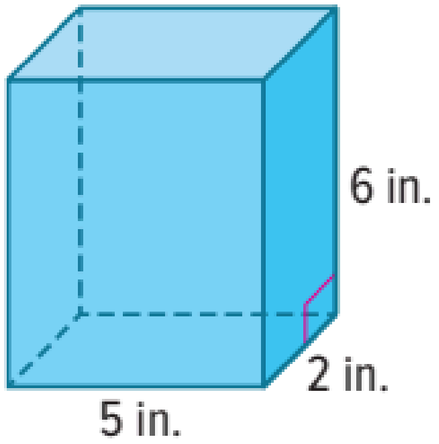


Find the surface area and volume of each solid. Round each measure to the nearest tenth, if necessary.

10.



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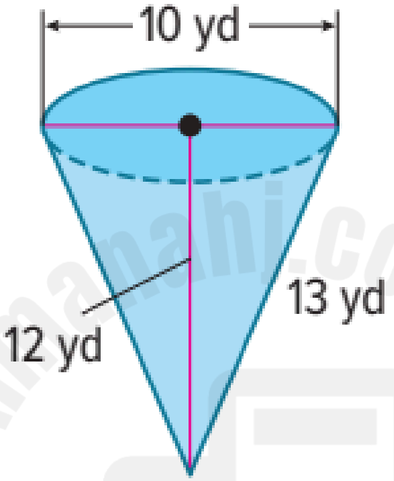

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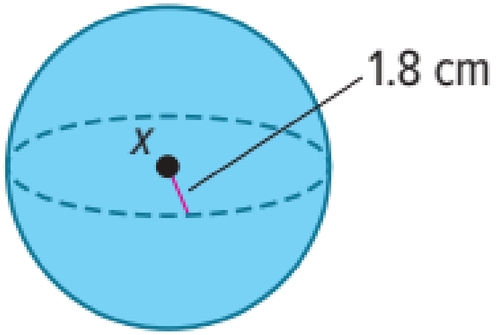


20	Identify two complementary angles and two supplementary angles and find the measure of missing angles	15-19	632

15. The measure of the supplement of an angle is 60° less than four times the measure of the complement of the angle. Find the measure of the angle.

16. ∠6 and ∠7 form a linear pair. Twice the measure of ∠6 is twelve more than four times the measure of ∠7. Find the measure of each angle.

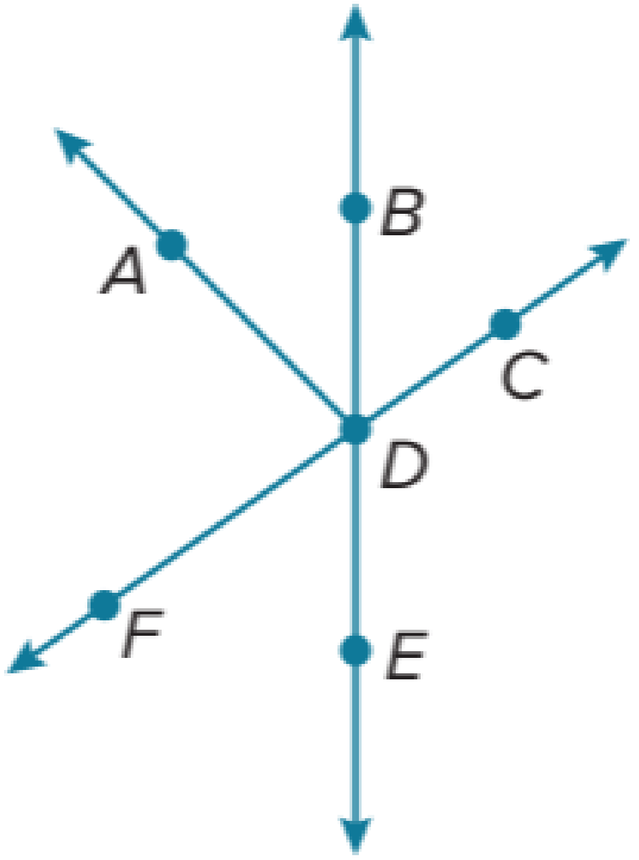
20	Identify two complementary angles and two supplementary angles and find the measure of missing angles	15-19	632

Refer to the figure at the right.

17. If $m\angle ADB = (6x - 4)°$ and $m\angle BDC = (4x + 24)°$, find the value of x such that $\angle ADC$ is a right angle.

18. If $m\angle FDE = (3x - 15)°$ and $m\angle FDB = (5x + 59)°$, find the value of x such that $\angle FDE$ and $\angle FDB$ are supplementary.

19. If $m\angle BDC = (8x + 12)°$ and $m\angle FDB = (12x - 32)°$, find $m\angle FDE$.



GOOD LUCK