

تم تحميل هذا الملف من موقع المناهج الإماراتية



## تجميع أسئلة وفق الهيكل الوزاري منهج ريفيل

موقع المناهج ← المناهج الإماراتية ← الصف التاسع المتقدم ← رياضيات ← الفصل الثاني ← ملفات متنوعة ← الملف

تاريخ إضافة الملف على موقع المناهج: 2025-02-24 09:58:23

ملفات اكتب للمعلم اكتب للطالب الاختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل  
منهج انجليزي | ملخصات و تقارير | مذكرات و بنوك | الامتحان النهائي للمدرس

المزيد من مادة  
رياضيات:

## التواصل الاجتماعي بحسب الصف التاسع المتقدم



صفحة المناهج  
الإماراتية على  
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

## المزيد من الملفات بحسب الصف التاسع المتقدم والمادة رياضيات في الفصل الثاني

ملزمة وفق الهيكل الوزاري منهج بريدج

1

أسئلة الامتحان النهائي الورقي بريدج

2

تجميع أسئلة وفق الهيكل الوزاري بريدج

3

حل تجميع صفحات الكتاب وفق الهيكل الوزاري

4

تجميع أسئلة صفحات الكتاب وفق الهيكل الوزاري

5

# هيكل الرياضيات للصف التاسع متقدم ( ريفيل )

الفصل الدراسي الثاني - 2024 - 2025

2025

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موقع المناهج الإماراتية

# الوحدة السابعة

Module 7  
Systems of Linear Equations  
and Inequalities

5 سؤال الكتروني 2 سؤال كتابي

اولا الاسئلة الالكترونية

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موقع المناهج الإلكترونية

**Examples 3 and 4**

Determine the number of solutions the system has. Then state whether the system of equations is *consistent* or *inconsistent* and if it is *independent* or *dependent*.

5.  $y = \frac{1}{2}x$   
 $y = x + 2$

6.  $4x - 6y = 12$   
 $-2x + 3y = -6$

7.  $8x - 4y = 16$   
 $-5x - 5y = 5$

8.  $2x + 3y = 10$   
 $4x + 6y = 12$

9.  $y = -\frac{3}{2}x + 5$   
 $y = -\frac{2}{3}x + 5$

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

## Lesson 7-3

Elimination Using  
Addition and Subtraction

## Examples 1, 3

Use elimination to solve each system of equations.

1.  $-v + w = 7$   
 $v + w = 1$

2.  $y + z = 4$   
 $y - z = 8$

3.  $-4x + 5y = 17$   
 $4x + 6y = -6$

4.  $5m - 2p = 24$   
 $3m + 2p = 24$

5.  $a + 4b = -4$   
 $a + 10b = -16$

6.  $6r - 6t = 6$   
 $3r - 6t = 15$

7.  $6c - 9d = 111$   
 $5c - 9d = 103$

8.  $11f + 14g = 13$   
 $11f + 10g = 25$

9.  $9x + 6y = 78$   
 $3x - 6y = -30$

10.  $3j + 4k = 23.5$   
 $8j - 4k = 4$

11.  $-3x - 8y = -24$   
 $3x - 5y = 4.5$

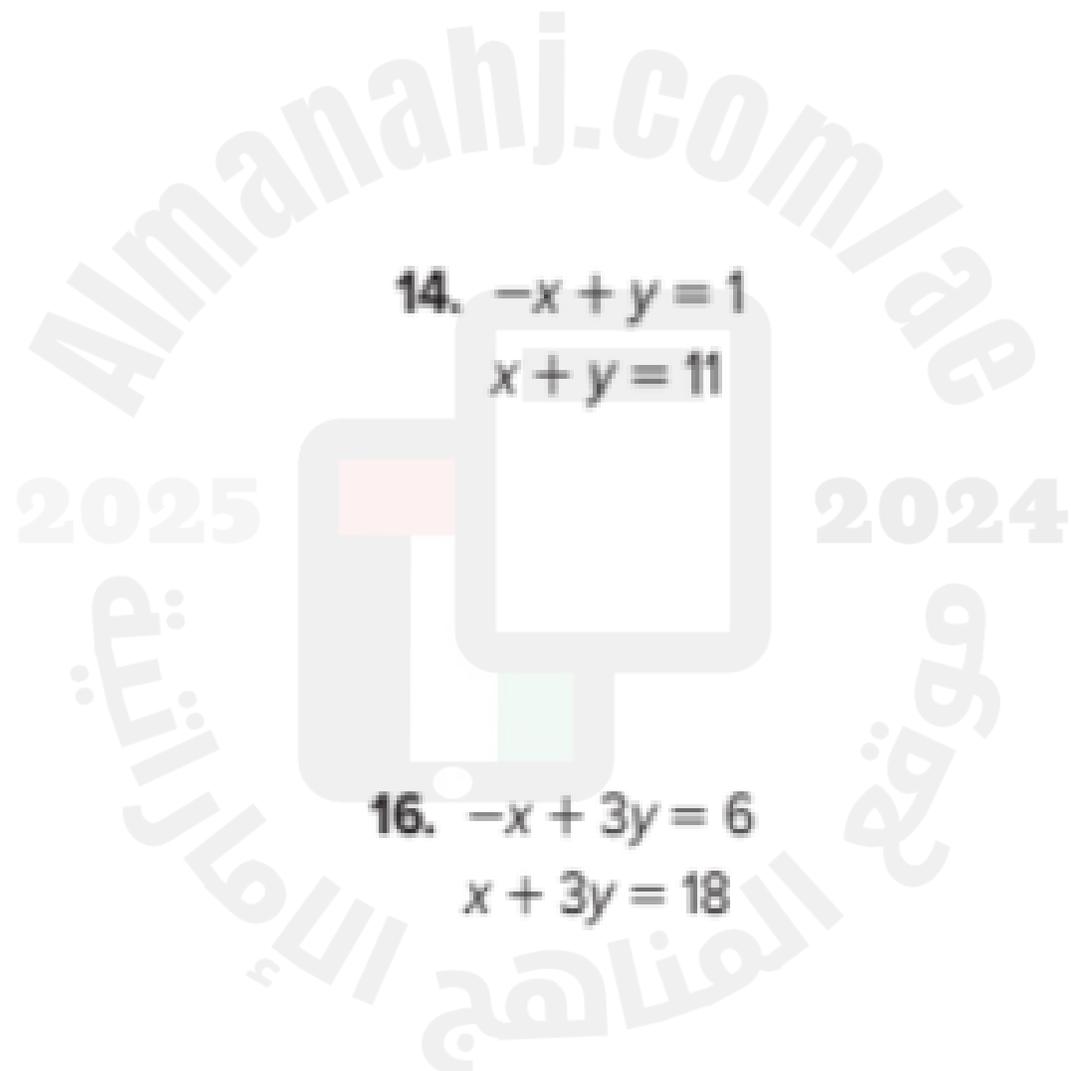
12.  $6x - 2y = 1$   
 $10x - 2y = 5$

13.  $x - y = 1$   
 $x + y = 3$

14.  $-x + y = 1$   
 $x + y = 11$

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

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



## Examples 1 and 2

## Elimination Using Multiplication

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

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

**Example 4** Write and Solve a System of Equations

**TREE PRESERVATION** A town ordinance defines an adult tree as having a diameter greater than 10 inches and a sapling as having a diameter less than 10 inches. The ordinance requires that on a new building project, two new trees are planted for each adult tree felled and six new trees are planted for each sapling felled. Last year, there were 167 trees felled, and the community planted 742 replacement trees. How many of each type of tree were felled?

**Example 4**

16. **MONEY** Harvey has some \$1 bills and some \$5 bills. In all, he has 6 bills worth \$22. Let  $x$  be the number of \$1 bills, and let  $y$  be the number of \$5 bills. Write a system of equations to represent the information, and use substitution to determine how many bills of each denomination Harvey has.
17. **REASONING** Shelby and Calvin are conducting an experiment in chemistry class. They need 5 milliliters of a solution that is 65% acid and 35% distilled water. There is no undiluted acid in the chemistry lab, but they do have two beakers of diluted acid. Beaker A contains 70% acid and 30% distilled water. Beaker B contains 20% acid and 80% distilled water.
- Write a system of equations that Shelby and Calvin could use to determine how many milliliters they need to pour from each beaker to make their solution.
  - Solve your system of equations. How many milliliters from each beaker do Shelby and Calvin need?

## Lesson 7-1

## Graphing Systems of Equations

Use the graph to determine the number of solutions the system has. Then state whether the system of equations is *consistent* or *inconsistent* and if it is *independent* or *dependent*.

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

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

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

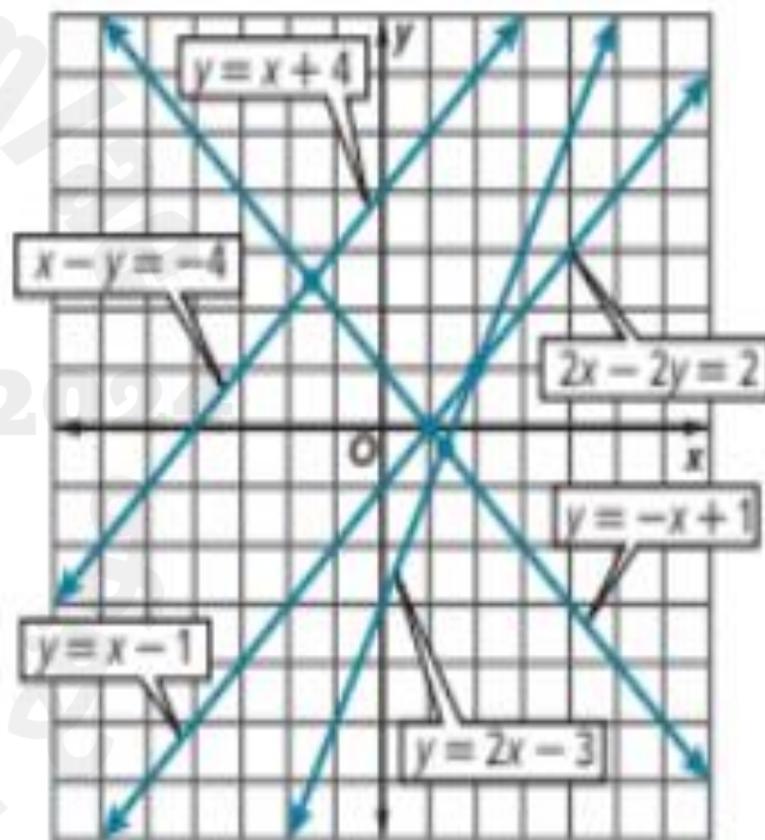
4.  $y = 2x - 3$   
 $2x - 2y = 2$

### Example 9 Solve a System of Equations

Solve the system of equations.

$$-1.38x - y = 5.13$$

$$0.62x + 2y = 1.60$$



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## Lesson 7-2

## Substitution

Use substitution to solve each system of equations.

1.  $y = 5x + 1$

$4x + y = 10$

4.  $y = 3x - 2$

$y = 2x - 5$

7.  $y = -3x + 4$

$-6x - 2y = -8$

10.  $y = -4x + 11$

$3x + y = 9$

13.  $5x - y = 5$

$-x + 3y = 13$

2.  $y = 4x + 5$

$2x + y = 17$

5.  $2x + y = 3$

$4x + 4y = 8$

8.  $-1 = 2x - y$

$8x - 4y = -4$

11.  $y = -3x + 1$

$2x + y = 1$

14.  $2x + y = 4$

$-2x + y = -4$

3.  $y = 3x - 34$

$y = 2x - 5$

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

$x + 2y = -1$

9.  $x = y - 1$

$-x + y = -1$

12.  $3x + y = -5$

$6x + 2y = 10$

15.  $-5x + 4y = 20$

$10x - 8y = -40$

Solve each system of inequalities by graphing.

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

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

3.  $y \leq x + 10$   
 $y > 6x + 2$

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

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

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

7.  $x > -1$   
 $y \leq -3$

8.  $y > 2$   
 $x < -2$

9.  $y > x + 3$   
 $y \leq -1$

10.  $x < 2$   
 $y - x \leq 2$

11.  $x + y \leq -1$   
 $x + y \geq 3$

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

# الوحدة العاشرة

Module 10

## Tools of Geometry

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5 سؤال الكتروني 2 سؤال كتابي

# اولا الاسئلة الالكترونية

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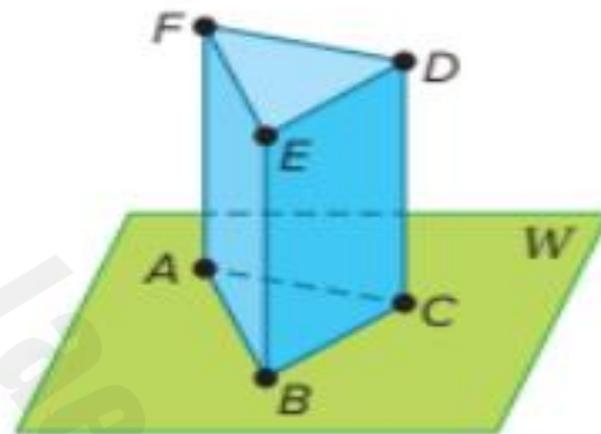
موقع المناهج الإلكترونية

## Lesson 10-2

## Points, Lines, and Planes

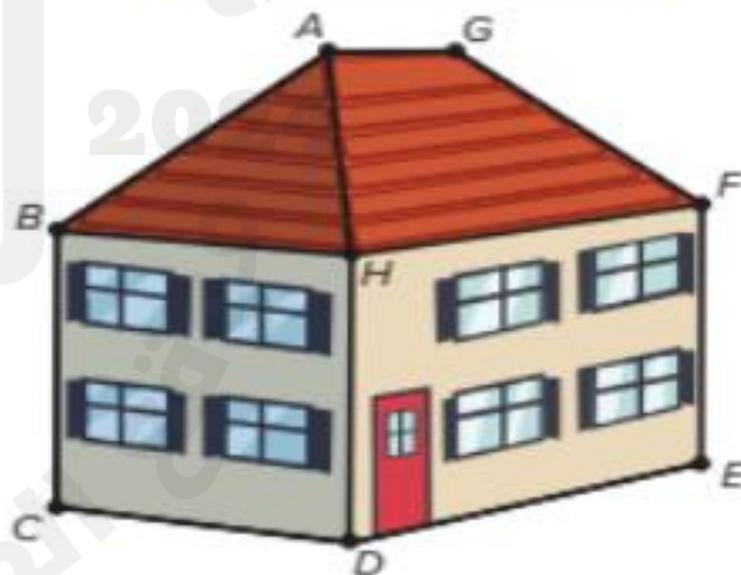
Refer to the figure for Exercises 25–28.

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.

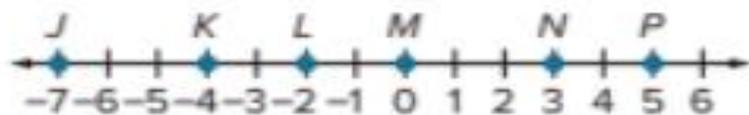


## Example 5

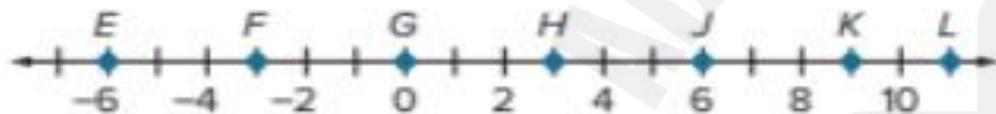
29. **BUILDING** The roof and exterior walls of a house represent intersecting planes. Using the image, name all the lines that are formed by the intersecting planes.
30. If the surface of a lake represents a plane, what geometric term is represented by the intersection of a fishing line and the lake's surface?



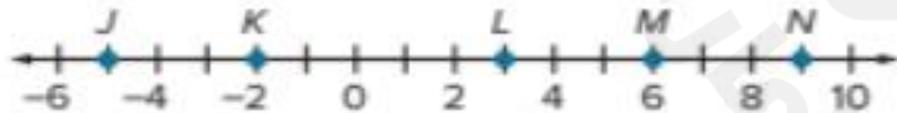
Use the number line to find each measure.

1.  $JL$ 2.  $JK$ 3.  $KP$ 4.  $NP$ 5.  $JP$ 6.  $LN$ 

Use the number line to find each measure.

7.  $JK$ 8.  $LK$ 9.  $FG$ 10.  $JG$ 11.  $EH$ 12.  $LF$ 

Use the number line to find each measure.

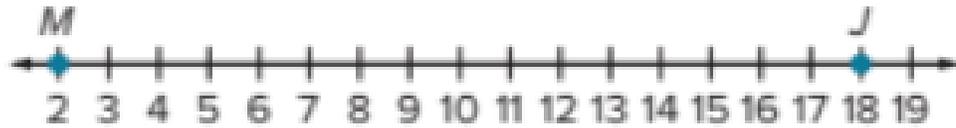
13.  $LN$ 14.  $JL$

Refer to the number line.



7. Find the coordinate of point G that is  $\frac{2}{3}$  of the distance from B to D. **-1**
8. Find the coordinate of point H that is  $\frac{1}{5}$  of the distance from C to F. **-2.2**
9. Find the coordinate of point J that is  $\frac{1}{6}$  of the distance from A to E. **-5.5**
10. Find the coordinate of point K that is  $\frac{4}{5}$  of the distance from A to F. **2.6**
11. Find the coordinate of point X such that the ratio of AX to XF is 1:3. **-4**
12. Find the coordinate of point X such that the ratio of BX to XF is 3:2. **1**
13. Find the coordinate of point X such that the ratio of CX to XE is 1:1. **-1**
14. Find the coordinate of point X such that the ratio of FX to XD is 5:3. **2.5**

Refer to the number line.



4. Find the coordinate of point X such that the ratio of  $MX$  to  $XJ$  is 3:1. **14**
5. Find the coordinate of point X such that the ratio of  $MX$  to  $XJ$  is 2:3. **8.4**
6. Find the coordinate of point X such that the ratio of  $MX$  to  $XJ$  is 1:1. **10**

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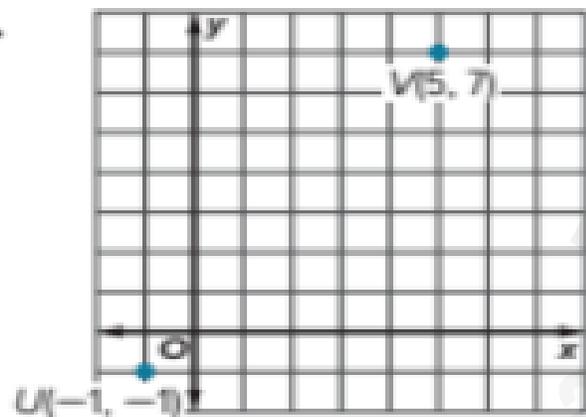
الموقع الإلكتروني  
المناهج

## Lesson 10-4

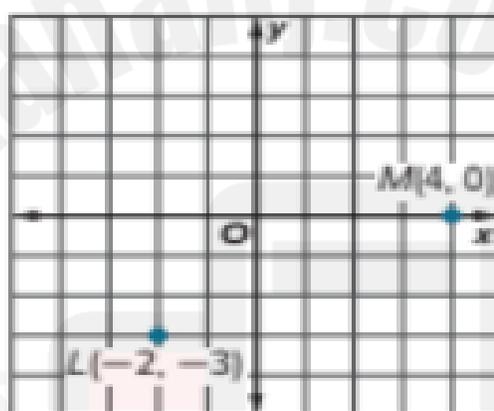
## Distance

Find the distance between each pair of points.

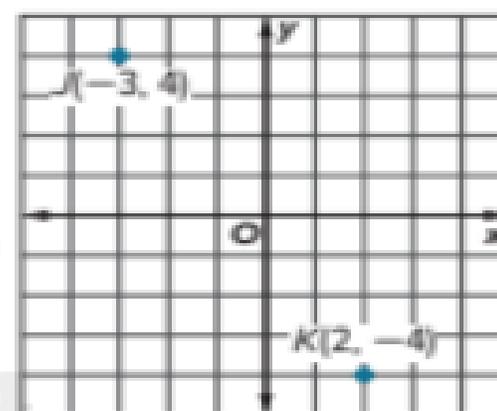
21.



22.



23.



24.  $A(2, 6), N(5, 10)$

25.  $R(3, 4), T(7, 2)$

26.  $X(-3, 8), Z(-5, 1)$

## Lesson 10-7

## Midpoints and Bisectors

Find the coordinates of the missing endpoint if  $P$  is the midpoint of  $\overline{NQ}$ .

49.  $N(2, 0), P(5, 2)$

50.  $N(5, 4), P(6, 3)$

51.  $Q(3, 9), P(-1, 5)$

52. Find the value of  $y$  if  $M$  is the midpoint of  $\overline{LN}$ .



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**Example 3**

Find the value of the variable and  $YZ$  if  $Y$  is between  $X$  and  $Z$ .

10.  $XY = 11$ ,  $YZ = 4c$ ,  $XZ = 83$

11.  $XY = 6b$ ,  $YZ = 8b$ ,  $XZ = 175$

12.  $XY = 7a$ ,  $YZ = 5a$ ,  $XZ = 6a + 24$

13.  $XY = 5.5$ ,  $YZ = 2c$ ,  $XZ = 8.9$

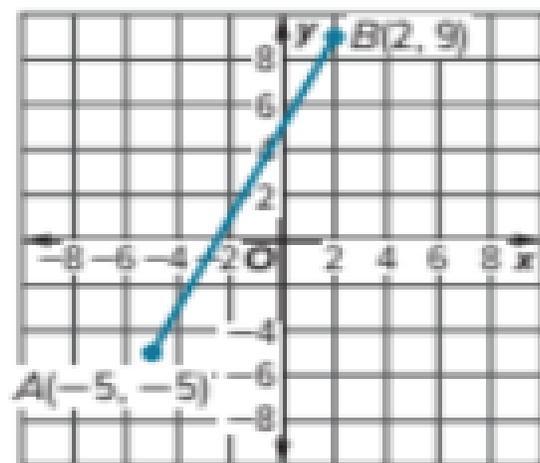
14.  $XY = 5n$ ,  $YZ = 2n$ ,  $XZ = 91$

15.  $XY = 4w$ ,  $YZ = 6w$ ,  $XZ = 12w - 8$

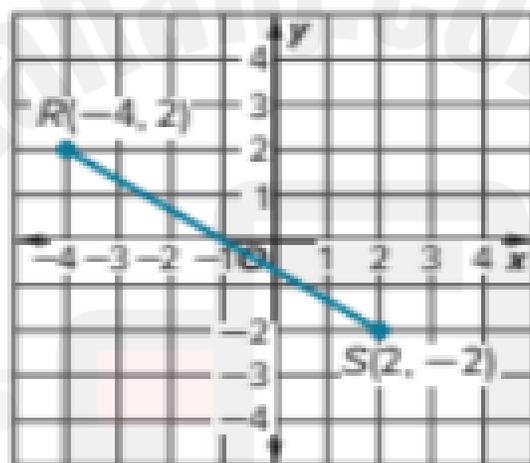
16.  $XY = 11d$ ,  $YZ = 9d - 2$ ,  $XZ = 5d + 28$

Find the coordinates of point  $X$  on the coordinate plane for each situation.

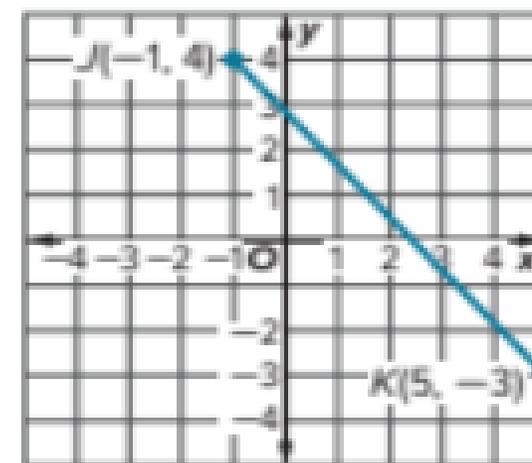
1. Point  $X$  on  $\overline{AB}$  is  $\frac{1}{5}$  of the distance from  $A$  to  $B$ .



2. Point  $X$  on  $\overline{RS}$  is  $\frac{1}{6}$  of the distance from  $R$  to  $S$ .



3. Point  $X$  on  $\overline{JK}$  is  $\frac{1}{3}$  of the distance from  $J$  to  $K$ .



# الوحدة الحادية عشر

Module 11

Angles and Geometric Figures

5 سؤال الكتروني 2 سؤال كتابي

# اولا الاسئلة الالكترونية

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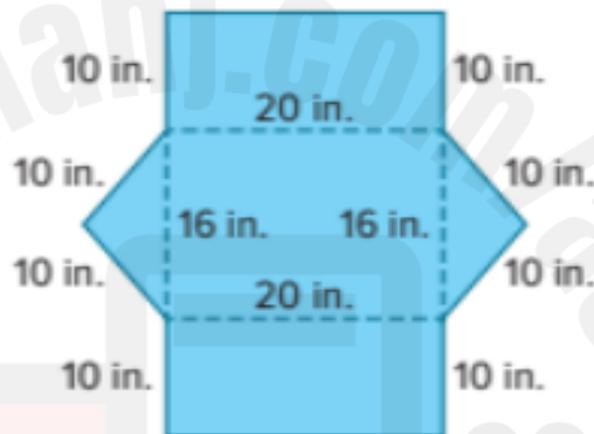
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موقع المناهج الإلكترونية

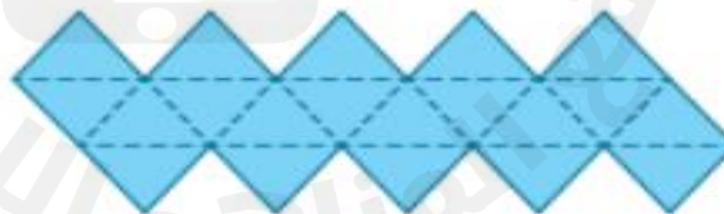
## Lesson 11-6

Two-Dimensional Representations  
of Three-Dimensional Figures**Example 3** Use a Net to Find Surface Area

Identify the solid that is represented by the net. Then find its surface area.

**Example 4** Identify Platonic Solids

Identify the Platonic solid that is represented by the net.



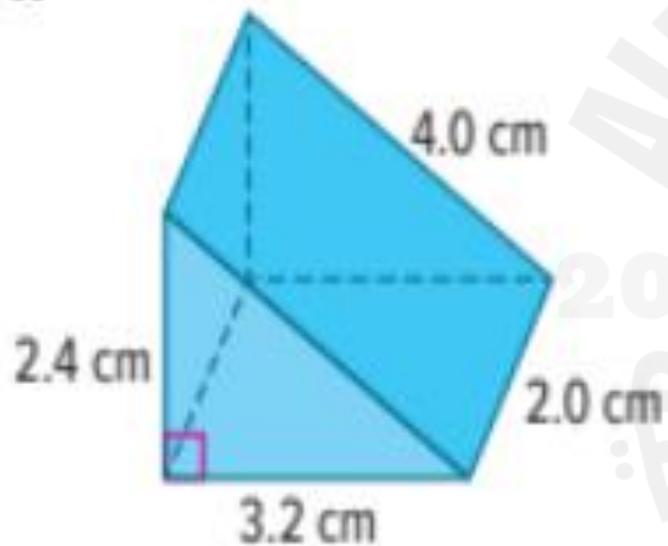
Because this net has 20 equilateral triangles, it represents a net of a(n) icosahedron.

## Lesson 11-5

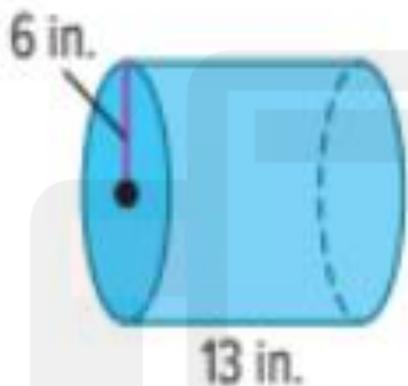
## Three-Dimensional Figures

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

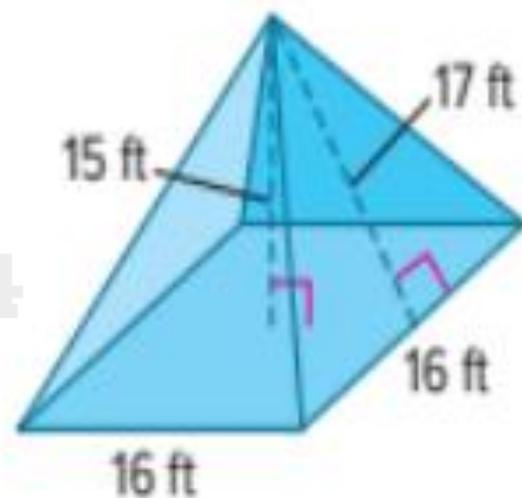
7.



8.



9.



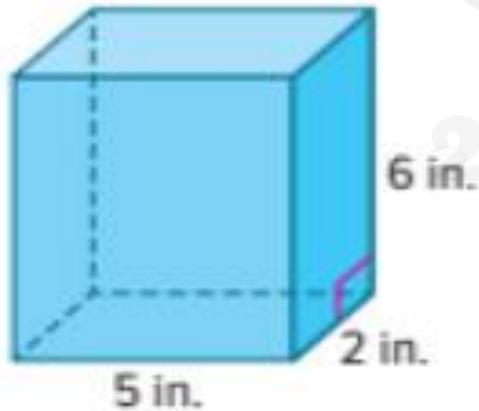
## Lesson 11-5

## Three-Dimensional Figures

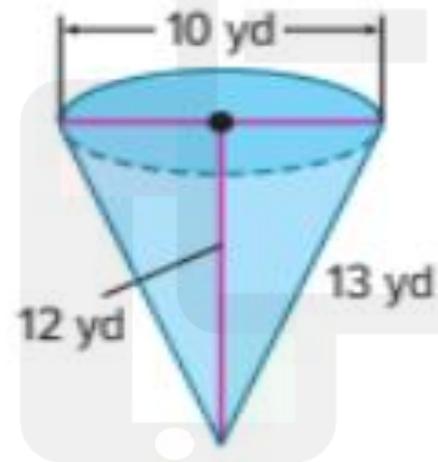
## Example 3

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

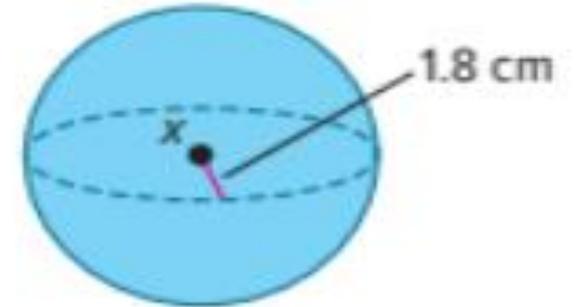
10.



11.

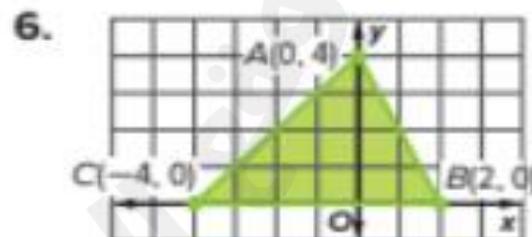
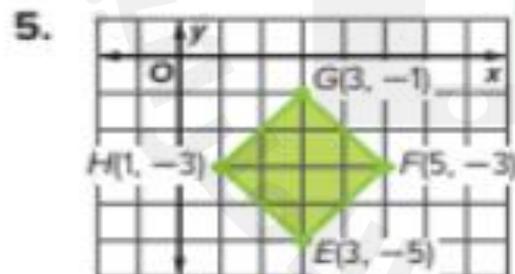
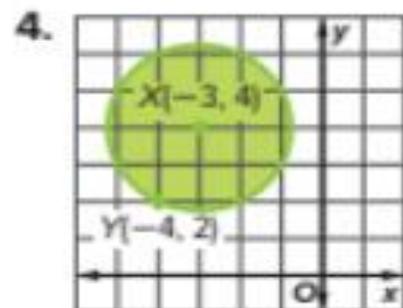
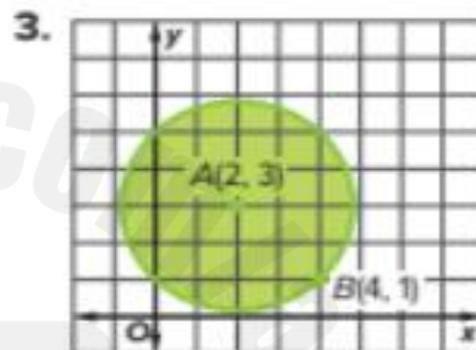
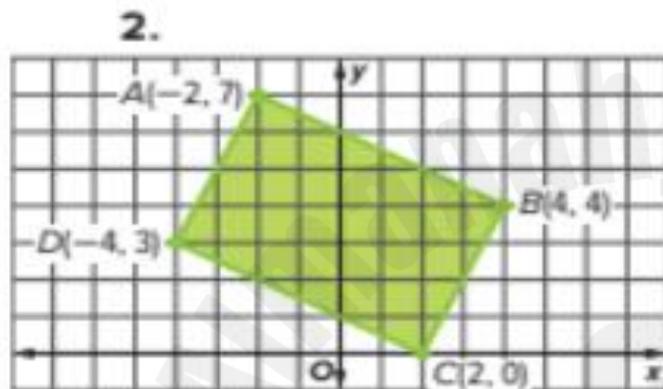
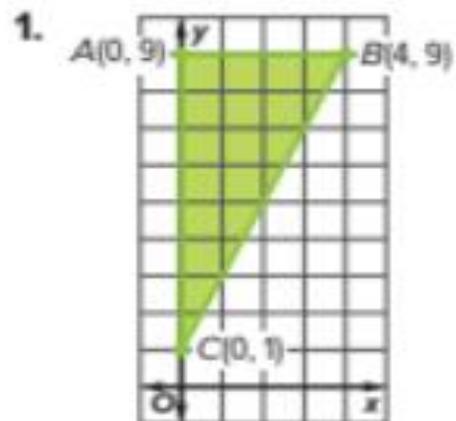


12.



## Example 1

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.



## Angle Relationships

## Example 1

1. Find the measures of two supplementary angles if the difference between the measures of the two angles is  $35^\circ$ .
2.  $\angle E$  and  $\angle F$  are complementary. The measure of  $\angle E$  is  $54^\circ$  more than the measure of  $\angle F$ . Find the measure of each angle.
3. The measure of an angle's supplement is  $76^\circ$  less than the measure of the angle. Find the measures of the angle and its supplement.
4.  $\angle Q$  and  $\angle R$  are complementary. The measure of  $\angle Q$  is  $26^\circ$  less than the measure of  $\angle R$ . Find the measure of each angle.
5. The measure of the supplement of an angle is three times the measure of the angle. Find the measures of the angle and its supplement.
6. The bascule bridge shown is opening from its horizontal position to its fully vertical position. So far, the bridge has lifted  $35^\circ$  in 21 seconds. At this rate, how much longer will it take for the bridge to reach its vertical position?



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موقع المناهج الإماراتية

## Lesson 11-1

## Angles and Congruence

In the figure,  $\overrightarrow{BA}$  and  $\overrightarrow{BC}$  are opposite rays.  $\overrightarrow{BH}$  bisects  $\angle EBC$  and  $\overrightarrow{BE}$  bisects  $\angle ABF$ .

6. If  $m\angle ABE = 2n + 7$  and  $m\angle EBF = 4n - 13$ , find  $m\angle ABE$ .  $27^\circ$

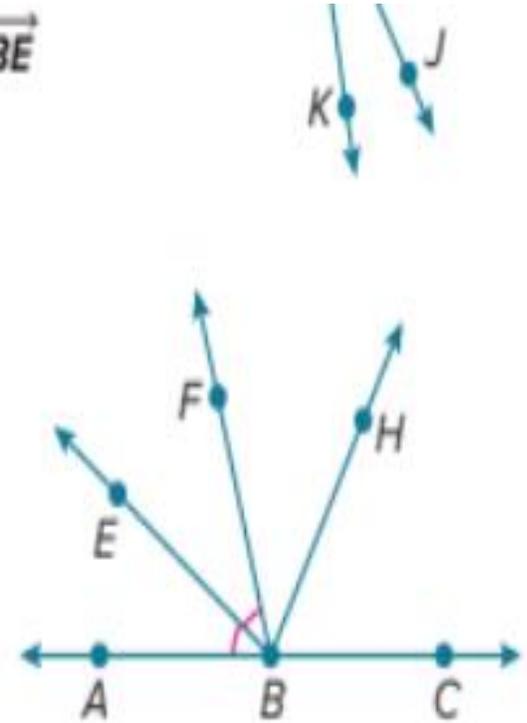
7. If  $m\angle EBH = 6x + 12$  and  $m\angle HBC = 8x - 10$ , find  $m\angle EBH$ .  $78^\circ$

8. If  $m\angle ABF = 7b - 24$  and  $m\angle ABE = 2b$ , find  $m\angle EBF$ .  $16^\circ$

9. If  $m\angle EBC = 31a - 2$  and  $m\angle EBH = 4a + 45$ , find  $m\angle HBC$ .  $61^\circ$

10. If  $m\angle ABF = 8w - 6$  and  $m\angle ABE = 2(w + 11)$ , find  $m\angle EBF$ .  $47^\circ$

11. If  $m\angle EBC = 3r + 10$  and  $m\angle ABE = 2r - 20$ , find  $m\angle EBF$ .  $56^\circ$



## Lesson 11-2

## Angle Relationships

**Example 1** Complementary and Supplementary Angles

Find the measures of two complementary angles if the measure of the larger angle is five more than four times the measure of the smaller angle.

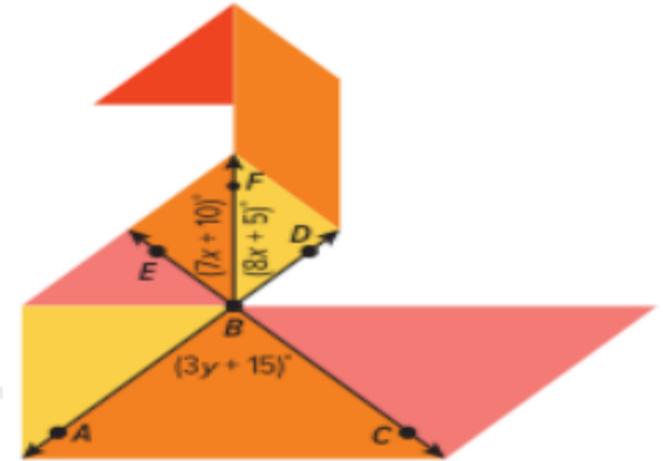
If two angles are complementary, then the sum of the angle measures is  $90^\circ$ . To find the measures of each angle, first write an equation. Let  $x$  = the measure of the smaller angle. Then the measure of the larger angle is  $4x + 5$ .

**Example 2** Perpendicular Lines

**TANGRAMS** The tangram is a puzzle consisting of seven flat shapes called *tans* which are put together to form shapes. Find the values of  $x$  and  $y$  such that  $\overrightarrow{AD}$  and  $\overrightarrow{EC}$  in the tangram are perpendicular.

If  $\overrightarrow{AD}$  and  $\overrightarrow{EC}$  are perpendicular, then  $m\angle ABC = 90^\circ$  and  $m\angle EBD = 90^\circ$ .

Step 1 Solve for  $y$ .



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