

شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية



## حل المراجعة النهائية وفق الهيكل الوزاري - ريفيل

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

## التواصل الاجتماعي بحسب الصف التاسع المتقدم



## روابط مواد الصف التاسع المتقدم على تلغرام

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[اللغة الانجليزية](#)

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

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# المراجعة النهائية للصف التاسع متقدم

الفصل الدراسي الثاني 2023/2022  
طبقاً لهيكل الاختبار

EoT2 – Grade 9  
Advanced

Reveal

Question	Learning Outcome***	Reference(s) in the Student Book	
		المرجع في كتاب الطالب	
Part 1	1 determine the number of solutions of a system of liner equations. Solve linear equations by graphing systems of equations	Ex 1,2	387,388
	2 Solve systems of equations by using the substitution method.	(1-9)	403
	3 Solve systems of equations by eliminating a variable using addition	(1-9)	409
	4 Identify points, lines, and planes.	(25-29)	566
	5 Identify points, lines, and planes.	Ex 1,2,4	562,564
	6 Calculate measures of line segments.	(1-9)	573
	7 Analyze figures using the definitions of angles and parts of angles.	(26-33)	622
	8 Calculate angle measures using the definitions of congruent angles and angle bisectors	(12-14)	621
	9 Identify and determine characteristics of three-dimensional figures	(1-6)	663
	10 Calculate surface areas and volumes	(7-12)	663

Each question 3 marks

كل سؤال عليه 3 درجات

Question	Learning Outcome***	Reference(s) in the Student Book		
		المرجع في كتاب الطالب		
Part 2	11	Solve systems of equations by graphing.	(1-8)	395
	12	Solve systems of equations by eliminating a variable using addition	(10-15)	409
	13	Apply the definition of congruent line segments to find missing values.	(10-15)	573
	14	Find the length of a line segment on a number line.	(1-6)	581
	15	Find the distance between two points on the coordinate plane	(31-36)	583
	16	Find a point on a directed line segment on a number line that is a given fractional distance from the initial point.	1,2,3,7,8,9	589
	17	Find a point that partitions a directed line segment on the coordinate plane in a given ratio	(4-6)	597
	18	Calculate angle measures using the characteristics of complementary and supplementary angles	(1-6)	631
	19	Find perimeters, circumferences, and areas of two-dimensional geometric shapes	(1-6)	641
	20	Solve systems of linear inequalities by graphing.	(15-17)	423

Each question 5 marks كل سؤال عليه 5 درجات

Question	Learning Outcome***	Reference(s) in the Student Book		
		المرجع في كتاب الطالب		
Part 3	21	Solve systems of equations by eliminating a variable using multiplication and addition	(1-9)	417
	22	Find perimeters, circumferences, and areas of two-dimensional geometric shapes	(7-9)	641
	23	Find the coordinates of the midpoint or endpoint of a line segment on the coordinate plane	(33-38)	606

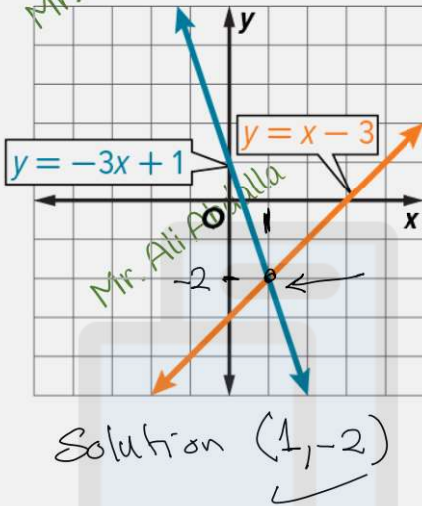
Each question 6-8 marks كل سؤال عليه 6-8 درجات

Question	Learning Outcome***	Reference(s) in the Student Book		
		المرجع في كتاب الطالب		
Bonus	24	****A learning outcome from the SoW	نتاج من الخطة الفصلية****	Bonus غير معن Undisclosed
	25	****A learning outcome from the SoW	نتاج من الخطة الفصلية****	

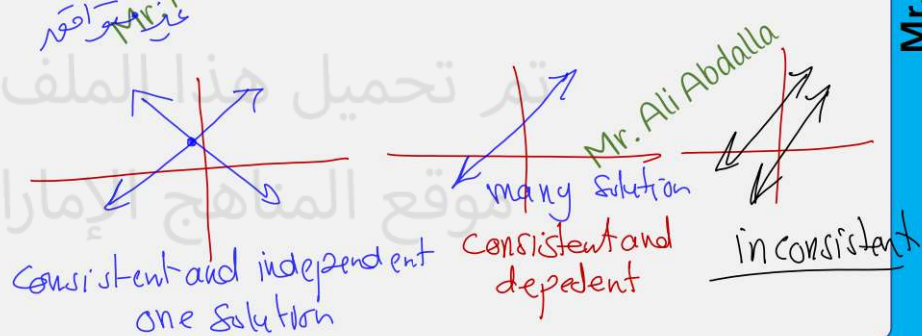
Each question 5 marks كل سؤال عليه 5 درجات

1	determine the number of solutions of a system of liner equations. Solve linear equations by graphing systems of equations	Ex 1,2	387, 388
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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.

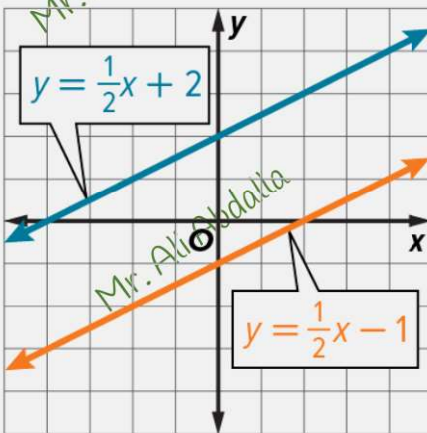


- A) Consistent and independent
- B) Consistent and dependent
- C) Inconsistent and independent
- D) Inconsistent



1	determine the number of solutions of a system of liner equations. Solve linear equations by graphing systems of equations	Ex 1,2	387, 388
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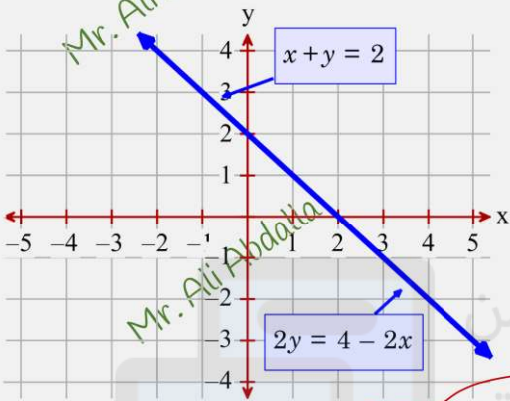


- A) Consistent and independent
- B) Consistent and dependent
- C) Inconsistent and independent
- D) Inconsistent

No solution

1	determine the number of solutions of a system of linear equations. Solve linear equations by graphing systems of equations	Ex 1,2	387, 388
---	----------------------------------------------------------------------------------------------------------------------------	--------	----------

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.



- A) Consistent and independent
- B) Consistent and dependent**
- C) Inconsistent and independent
- D) Inconsistent

*infinite many Solution*  
*Same Line*

2	Solve systems of equations by using the substitution method.	(1-9)	403
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Use substitution to solve each system of equations.

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

- A) (1,11)
- B) (6,1)
- C) (1, -6)
- D) (1,6)**

$4x + 5x + 1 = 10$

$9x + 1 = 10$

$9x = 9$

$x = 1$

$y = 5(1) + 1$   
 $y = 6$

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

**(1, 6)**

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

- A) (2,11)
- B) (2,13)**
- C) (13,2)
- D) (-2,5)

$2x + 4x + 5 = 17$

$6x + 5 = 17$

$6x = 12$   $\div 6$

**$x = 2$**

$y = 4(2) + 5$   
 $= 13$

**(2, 13)**

2 Solve systems of equations by using the substitution method.

(1-9)

403

Use substitution to solve each system of equations.

4.  $y = 3x - 2$

$y = 2x - 5$

$3x - 2 = 2x - 5$   
 $-2x \quad -2x$

$x - 2 = -5$   
 $+2 \quad +2$

$x = -3$

$(-3, -11)$

A) (3,7)

B) (5,13)

C) (-3,11)

D) (-3, -11)

3.  $y = 3x - 34$

$y = 2x - 5$

$-3x + y = -34$

$-2x + y = -5$

A) (53,29)

B) (29,35)

C) (29,53)

D) (7, -13)

2 Solve systems of equations by using the substitution method.

(1-9)

403

Use substitution to solve each system of equations.

5.  $2x + y = 3$

$4x + 4y = 8$

$2x + y = 3$   
 $-2x \quad -2x$

$y = 3 - 2x$   
 $y = 3 - 2(1)$   
 $= 1$

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

$4x + 12 - 8x = 8$

$-4x + 12 = 8$   
 $-12 \quad -12 \Rightarrow x = 1$

~~A) (2, -1)~~

B) (1,1)

~~C) (-1,1)~~

D) (1, -3)

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

$x + 2y = -1$   
 $-2y \quad -2y$

$x = -1 - 2y$

$3(-1 - 2y) + 4y = -3$

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

$-2y - 3 = -3$   
 $+3 \quad +3$

$-2y = 0$

$y = 0$

$x = -1 - 2(0)$   
 $= -1$

$(-1, 0)$

A) (-1,0)

~~B) (1,0)~~

~~C) (0,1)~~

~~D) (3, -3)~~

2 Solve systems of equations by using the substitution method.

(1-9)

403

Use substitution to solve each system of equations.

7.  $y = -3x + 4$  991 EX

$$\begin{aligned} -6x - 2y &= -8 \\ -6x - 2(-3x + 4) &= -8 \\ -6x + 6x - 8 &= -8 \\ -8 &= -8 \end{aligned}$$

True  $-8 = -8$

False  $-5 = 5$  No Solution

- A) (1,1)    B) Infinite solution  
C) (1, -1)    D) No solutions

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

$$\begin{aligned} 8x - 4y &= -4 \\ 2x - y &= -1 \\ 8x - 4y &= -4 \div 4 \\ 2x - y &= -1 \end{aligned}$$

Same line

- A) (2,5)    B) Infinite solution  
C) (2, -5)    D) No solutions

9.  $x = y - 1$

$$\begin{aligned} -x + y &= -1 \\ -(y-1) + y &= -1 \\ -y + 1 + y &= -1 \\ 1 &= -1 \end{aligned}$$

False  $1 = -1$

- A) (2,5)    B) Infinite solution  
C) (2, -5)    D) No solutions

3 Solve systems of equations by eliminating a variable using addition

(1-9)

409

Use elimination to solve each system of equations.

1.  $-v + w = 7$

$$\begin{aligned} v + w &= 1 \\ -v + w &= 7 \\ \hline 2w &= 8 \div 2 \\ w &= 4 \\ v + 4 &= 1 \\ -4 -4 & \\ v &= -3 \end{aligned}$$

addition  $(-3, 4)$

- A) (-3, -4)  
B) (1,8)  
C) (-3,4)  
D) (3,4)

2.  $y + z = 4$

$$\begin{aligned} y - z &= 8 \\ y + z &= 4 \\ y - z &= 8 \\ \hline 2y &= 12 \\ y &= 6 \\ y + z &= 4 \\ 6 + z &= 4 \\ -6 -6 & \\ z &= -2 \end{aligned}$$

addition  $(6, -2)$

- A) (6, -2)  
B) (-2,6)  
C) (2,2)  
D) (3,1)

3 Solve systems of equations by eliminating a variable using addition

(1-9)

409

Use elimination to solve each system of equations.

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

- 4) A) (6, -3)  
 B) (3, 6)  
 C) (-3, 4)  
 D) (6, 3)

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

- 3) A) (6, -3, -1)  
 B) (-3, 1)  
 C) (6, 2)  
 D) (3, 1)

~~$-4x + 5y = 17$~~  +  
 ~~$4x + 6y = -6$~~

$11y = 11$   
 $y = 1$

addition

$(-3, 1)$

$4x + 6y = -6$   
 $4x + 6(1) = -6$   
 $4x = -12 \Rightarrow x = -3$

$x = -3$

$8m = 48 \div 8$   
 $m = 6$

$3m + 2p = 24$

$3(6) + 2p = 24$   
 $-18$

$2p = 6 \div 2$   
 $p = 3$

$(6, 3)$

3 Solve systems of equations by eliminating a variable using addition

(1-9)

409

Use elimination to solve each system of equations.

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

- A)  $a = 4, b = -2$   
 B)  $a = -2, b = 4$   
 C)  $a = 4, b = 2$   
 D)  $a = -4, b = -2$

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

- A)  $r = -4, t = -3$   
 B)  $r = -3, t = -4$   
 C)  $r = -4, t = 3$   
 D)  $r = -3, t = 4$

~~$a + 4b = -4$~~   
 ~~$a + 10b = -16$~~

$-6b = 12 \div -6$   
 $b = -2$

Subtraction

$a + 4(-2) = -4$   
 $a - 8 = -4$   
 $+8 \quad +8 \Rightarrow a = 4$

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

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

$3r = -9$   
 $r = -3$

$6(-3) - 6t = 6$

$-18 - 6t = 6$   
 $+18 \quad +18$

$-6t = 24 \div (-6)$   
 $t = -4$



3 Solve systems of equations by eliminating a variable using addition

(1-9)

409

Use elimination to solve each system of equations.

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

8.  $11f + 14g = 13$   
 $11f + 10g = 25 \quad \times -1$

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

*Handwritten solution for problem 8:*  

$$\begin{array}{r} -11f - 10g = -25 \\ +11f + 14g = 13 \\ \hline 4g = -12 \\ g = -3 \end{array}$$

$$11f + 14(-3) = 13$$

$$11f - 42 = 13$$

$$11f = 55$$

$$f = 5$$
 Solution:  $(5, -3)$

- A) (8,7)    B) Infinite solution  
 C) (8, -7)    D) No solutions

- A) (5,3)    B) Infinite solution  
 C) (5, -3)    D) No solutions

- A) (4,5)    B) (7,4)  
 C) (4, -5)    D) (4,7)

4 Identify points, lines, and planes.

(25-29)

566

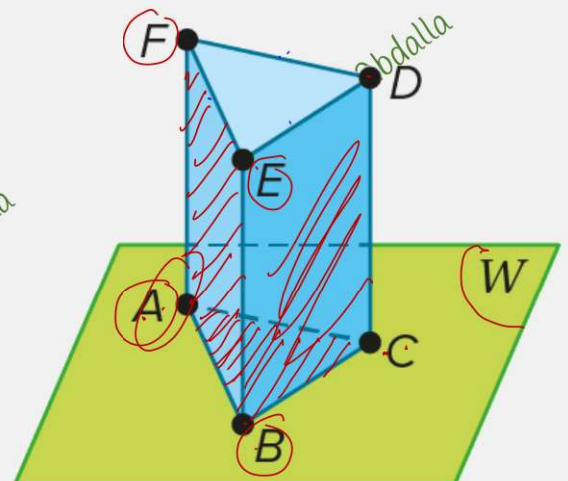
Refer to the figure for Exercises 25–28.

$1 + 3 + 1 = 5$

25. How many planes are shown in the figure?  
 A) 4    B) 5    C) 6    D) 7
26. How many of the planes contain points F and E?  
 A) 1    B) 2    C) 3    D) 4
27. Name four points that are coplanar.

Which of the following are not coplanar?

- A) A, B, E, F    B) B, C, D, F  
 C) B, C, D, E    D) A, C, D, F
28. Are points A, B, and C coplanar? Explain.  
 A) Yes: Points A, B and C lie in plan W  
 B) Yes: Points A, B and C lie in plan EBCD  
 C) No: Points A, B and C not lie in same plan  
 D) No: Points A, B lie in plan W and C not.



4 Identify points, lines, and planes.

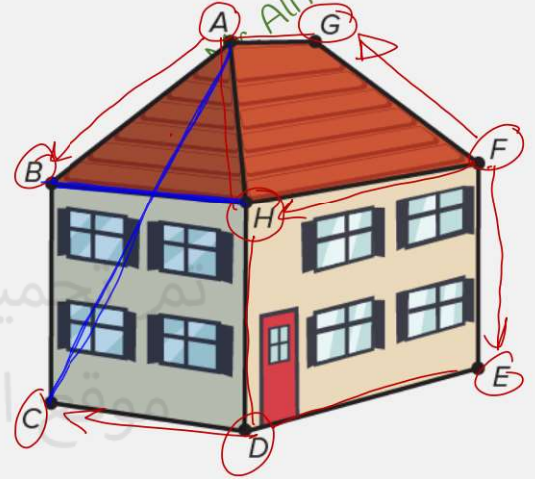
(25-29)

566

29. 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.

All of the following lines are lines that are formed by the intersecting planes except:

<input checked="" type="checkbox"/>	$\overleftrightarrow{AB}$	<input checked="" type="checkbox"/>	$\overleftrightarrow{CD}$
<input checked="" type="checkbox"/>	$\overleftrightarrow{AG}$	<input checked="" type="checkbox"/>	$\overleftrightarrow{DE}$
<input checked="" type="checkbox"/>	$\overleftrightarrow{BC}$	<input checked="" type="checkbox"/>	$\overleftrightarrow{DH}$
<input checked="" type="checkbox"/>	$\overleftrightarrow{AH}$	<input checked="" type="checkbox"/>	$\overleftrightarrow{EF}$ $\overleftrightarrow{FE}$
<input checked="" type="checkbox"/>	$\overleftrightarrow{AC}$	<input checked="" type="checkbox"/>	$\overleftrightarrow{FG}$
<input checked="" type="checkbox"/>	$\overleftrightarrow{BH}$	<input checked="" type="checkbox"/>	$\overleftrightarrow{FH}$



5 Identify points, lines, and planes.

Ex 1,2,4

562,564

Use the figure to name each of the following.

a. each of the following is a line containing point Q except.

- A)  $\overleftrightarrow{TR}$  B)  $\overleftrightarrow{TQ}$  C)  $\overleftrightarrow{RQ}$  D) line c E)  $\overleftrightarrow{RV}$

b. each of the following is a line containing point T except.

- A)  $\overleftrightarrow{TR}$  B)  $\overleftrightarrow{TQ}$  C)  $\overleftrightarrow{RQ}$  D) line c E)  $\overleftrightarrow{RV}$

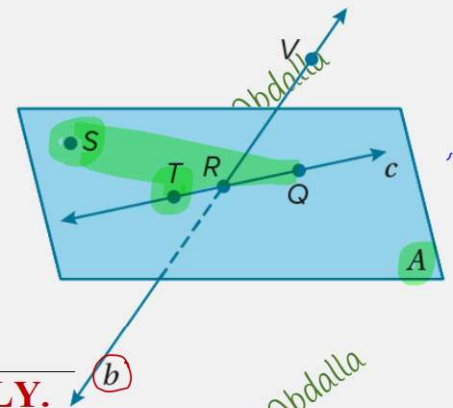
c. which of the following is a line containing point V.

Select that all APPLY.

- A)  $\overleftrightarrow{VR}$  B)  $\overleftrightarrow{TQ}$  C)  $\overleftrightarrow{RQ}$  D) line b E)  $\overleftrightarrow{RV}$

d. a plane containing point S and point T. Select that all APPLY.

- A) plane QST B) plane STV C) plane QVS  
 D) plane VST E) plane A F) plane TRS  
 G) plane TQS



5 Identify points, lines, and planes.

Ex 1,2,4

562,564

Name the geometric terms modeled by the objects in the picture.

a. The notebook models

- A) point B) line C) plane D) space

b. The edges of the notebook model

- A) point B) line C) plane D) space

c. The black pen models.

- A) point B) line C) plane D) space

d. The quarter models.

- A) point B) line C) plane D) space

e. Points N, L, and K are:

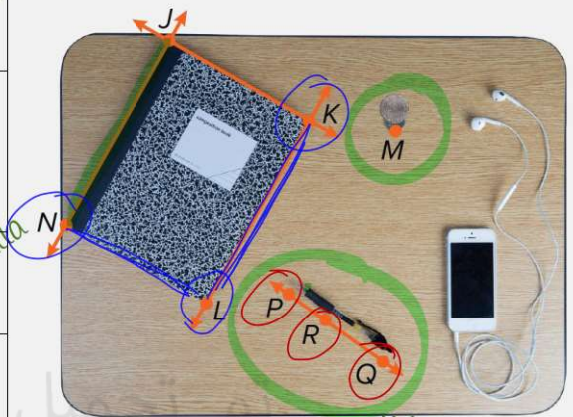
Select that all APPLY

- A) coplanar B) noncoplanar C) collinear  D) noncollinear

e. Points P, Q, and R are:

Select that all APPLY

- A) coplanar  B) noncoplanar  C) collinear D) noncollinear



5 Identify points, lines, and planes.

Ex 1,2,4

562,564

Refer to the figure.

a. How many planes appear in this figure?

- A) 2 B) 3 C) 5 D) 6

plane P, plane CAG, plane GFA, plane EFA, plane DEA, and plane DCA

b. Name four points that are collinear.

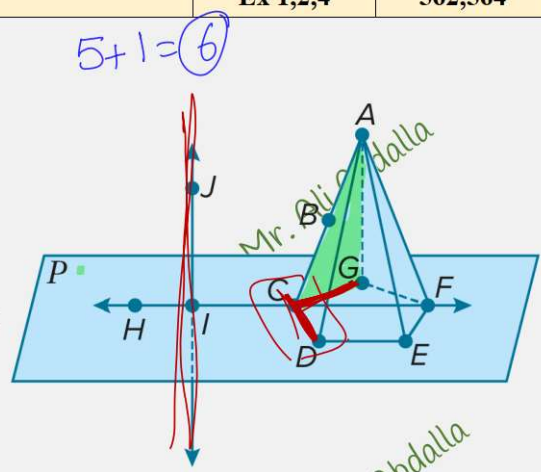
- A) Points H, I, C, and F B) Points H, I, G, and F  
C) Points G, C, D, and E D) Points A, B, C, and D

c. Name the intersection of plane GAC and plane P.

- A)  $\overleftrightarrow{GC}$  B)  $\overleftrightarrow{GF}$  C)  $\overleftrightarrow{BC}$  D) no intersection

d. At what point do  $\overleftrightarrow{JI}$  and  $\overleftrightarrow{DC}$  intersect? Explain.

- A) point J B) point I C) point C D) no intersection space



It does not appear that these lines intersect.  $\overleftrightarrow{DC}$  lies in plane P, but only point I of  $\overleftrightarrow{JI}$  lies in plane P.

5 Identify points, lines, and planes.

Ex 1,2,4

562,564

Refer to the figure.

a. How many planes appear in this figure?

- A) 2    B) 3    C) 5    D) 6

plane X, plane EIH, plane EHG, plane EGF, and plane EIF

b. Name three points that are collinear.

- A) Points I, C, and D    B) Points H, I, and F  
 C) Points A, D, and B    D) Points A, B, and C

c. Name the intersection of plane EFG and plane X.

- A)  $\overleftrightarrow{DC}$     B)  $\overleftrightarrow{GF}$     C)  $\overleftrightarrow{HI}$     D) no intersection

d. At what point do  $\overleftrightarrow{AB}$  and  $\overleftrightarrow{DC}$  intersect?

- A) point B    B) point C    C) point D    D) point A

