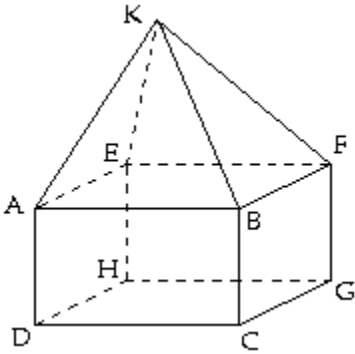


TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

Use the following figure to verify if statement is true or false.

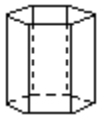


- 1) \overleftrightarrow{AB} and \overleftrightarrow{GE} are skew lines.
- 2) \overleftrightarrow{AB} and \overleftrightarrow{CF} are parallel lines.
- 3) The intersection of \overleftrightarrow{KB} and plane CGF is point B.
- 4) \overleftrightarrow{AK} and \overleftrightarrow{EK} are perpendicular to the plane BEF.
- 5) The intersection of planes AEF, FGC and BCD is point B.
- 6) \overleftrightarrow{AD} and \overleftrightarrow{BD} are coplanar lines.
- 7) ABE and DCG are parallel planes.

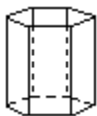
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Find the measure of the dihedral angle indicated.

- 8) The figure shown is a right prism whose bases are regular hexagons. Find the measure of the dihedral angle between each lateral face and a base.



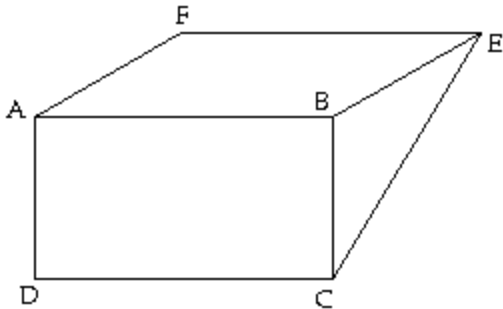
- 9) The figure shown is a right prism whose bases are regular hexagons. Find the measure of the dihedral angle between adjacent lateral faces.



- 10) Convert $80^{\circ}14'10''$ to degrees.
- 11) Convert 21.18° to degrees, minutes and seconds.

Answer the question.

- 12) How many lines can be drawn through 10 points, no three of which are collinear?
- 13) In the given figure, what is the intersection of the planes DCE and FAB?



- 14) What is the least and maximum number of lines obtainable with 4 points?

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Describe the figure.

15)



- A) Convex curve
C) Polygon

- B) Simple closed curve
D) Concave curve

16)



- A) Simple curve
C) Closed curve

- B) Simple closed curve
D) None of the above

17)



- A) Simple closed curve
C) Simple curve

- B) Closed curve
D) None of the above

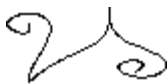
18)



- A) Closed curve
C) Simple curve

- B) Simple closed curve
D) None of the above

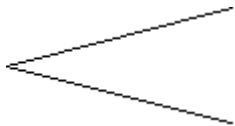
19)



- A) Simple closed curve
- C) Closed curve

- B) Simple curve
- D) None of the above

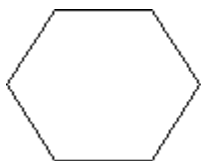
20)



- A) Closed curve
- C) Simple curve

- B) Simple closed curve
- D) Convex curve

21)



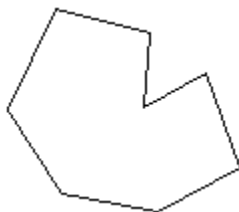
- A) Simple polygon

- B) Closed polygon

- C) Convex polygon

- D) All of the above

22)



- A) Polygon
- C) Convex polygon

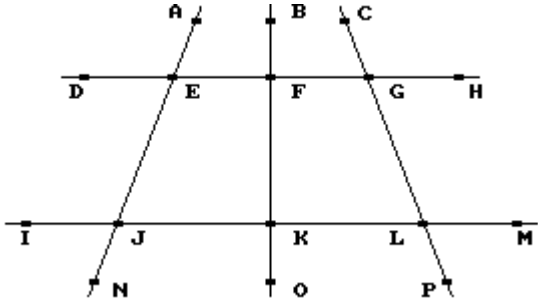
- B) Concave polygon
- D) Simple closed curve

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Find the requested angle.

- 23) The ratio measure of two angles that are supplementary is 4:5. What is the measure of the two angles?
- 24) What is the measure of an angle whose measure is nine times its supplement?
- 25) The sum of two angles of a triangle is 150° . What is the supplement of the third angle of the triangle?

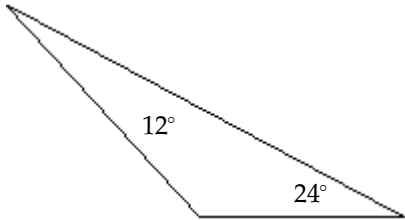
Refer to this figure to answer the question. Line DH is parallel to line IM. Line BO is perpendicular to line DH.



- 26) If $m(\angle IJN)$ is 54° . What is the measure of $\angle JEF$? $\angle IJE$?
- 27) $m(\angle IJN)$ is 53° . $m(\angle IJN) = m(\angle PLM)$. What is the measure of $\angle FGC$?
- 28) Are $\angle MLG$ and $\angle FGC$ supplementary?

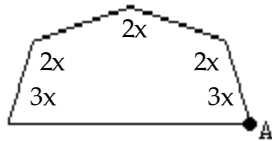
Find the missing angle.

29)



Determine the measure of the interior angle at vertex A.

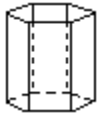
30)



MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Give the name of the solid.

31)



- A) Oblique cone
 B) Right hexagonal prism
 C) Hexagonal pyramid
 D) Right hexagonal cylinder

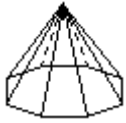
32)



- A) Oblique circular cylinder
 B) Circular pyramid
 C) Oblique cone
 D) Cylindrical prism

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

33)



TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

Decide whether the statement is true or false.

- 34) The sides of a regular polyhedron, although having to be the same polygon, do not have to be regular polygons.
- 35) An octahedron has twice as many edges as it does vertices.
- 36) If one lateral face of a prism is not bounded by a rectangle, it is an oblique prism.
- 37) A pyramid always consists of a base and triangular lateral faces.
- 38) All cylinders are polyhedrons.

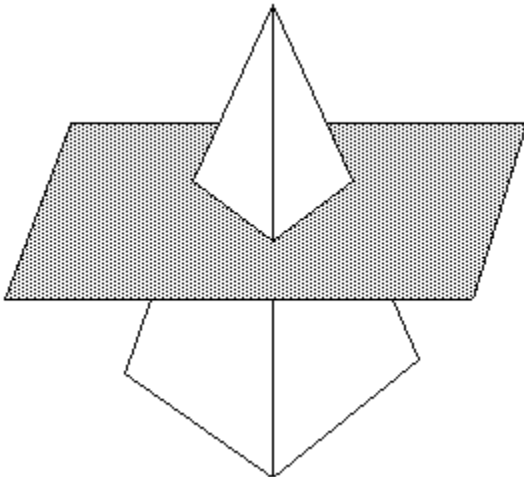
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Use Euler's formula to answer the question.

- 39) A polyhedron has 15 vertices and 20 faces. How many edges does it have?
- 40) A pyramid has 4 faces. How many edges does it have?

Sketch the intersection of each of the following with the plane shown.

- 41) Square pyramid



Answer Key

Testname: CH9REVIEW.TST

- 1) TRUE
- 2) FALSE
- 3) TRUE
- 4) FALSE
- 5) TRUE
- 6) TRUE
- 7) TRUE
- 8) 90°
- 9) 120°
- 10) 80.24
- 11) $21^\circ 10' 48''$
- 12) 45
- 13) \leftrightarrow
FE
- 14) 1, 6
- 15) B
- 16) D
- 17) B
- 18) C
- 19) B
- 20) C
- 21) D
- 22) B
- 23) $80^\circ, 100^\circ$
- 24) 162°
- 25) 150°
- 26) $126^\circ; 126^\circ$
- 27) 53°
- 28) Yes
- 29) 144°
- 30) 135
- 31) B
- 32) A
- 33) Octagonal pyramid
- 34) FALSE
- 35) TRUE
- 36) TRUE
- 37) TRUE
- 38) FALSE
- 39) 33
- 40) 6

Answer Key

Testname: CH9REVIEW.TST

41) Square

