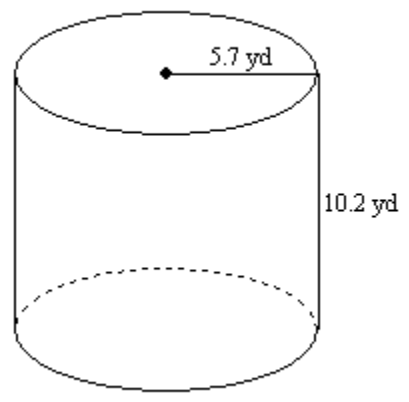## Chapter 5 Online Review

Indicate the answer choice that best completes the statement or answers the question.
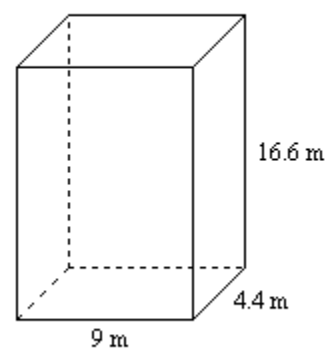
Find the volume of the solid.
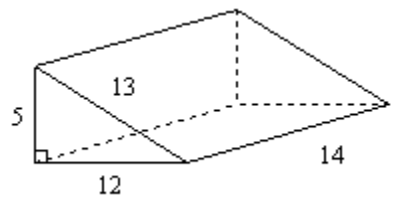
1.

A. 182.7 yd³   B. 1041.1 yd³

C. 365.3 yd³   D. 1488.8 yd³

2.

F. 657.4 m³   G. 1,344.6 m³
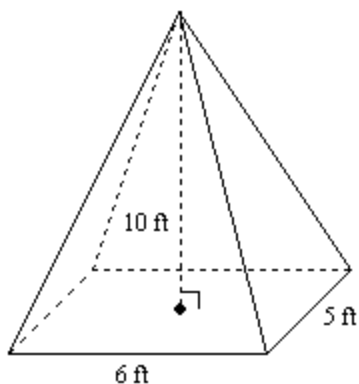
H. 30 m³   I. 328.7 m³

3.

A. 390 unit³   B. 840 unit³

C. 420 unit³   D. 480 unit³

Chapter 5 Online Review
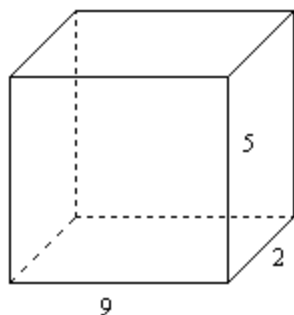
4.

F. 300 ft^3 G. 80 ft^3

H. 110 ft^3 I. 100 ft^3

Find the surface area of the solid.

5.

A. 90 units^2 B. 146 units^2
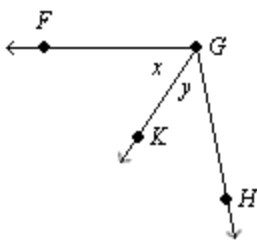
C. 73 units^2 D. 74 units^2

Make a conjecture about the next item in the sequence.

6. **1, –8, –17, –26,**

F. -43   G. -32

H. -35   I. -36

Chapter 5 Online Review

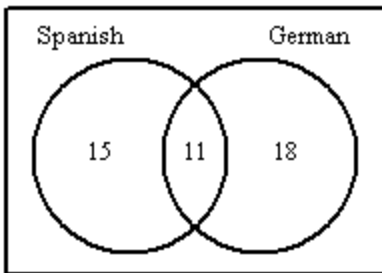*In the figure, $\overrightarrow{GK}$ bisects $\angle FGH$.*

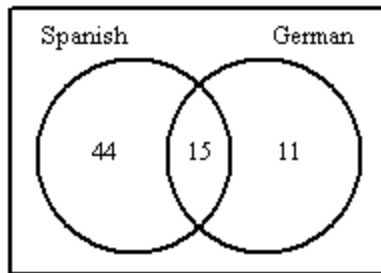7. If $m\angle FGK = 8w + 7$ and $m\angle FGH = 158$, find w.

   A. 9   B. 18.88

   C. 79   D. 4.5

8. Of the 44 students studying foreign languages at Ashley's school, 15 are studying Spanish only, 11 are studying German only, and 18 are studying both languages. Which Venn diagram correctly shows this situation?
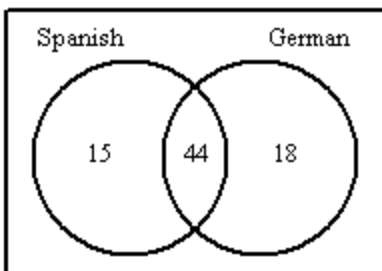
   F.
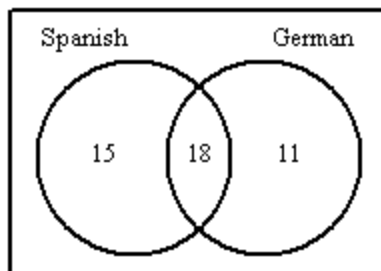
Learning Foreign Languages

   G.

Learning Foreign Languages

   H.

Learning Foreign Languages

   I.

Learning Foreign Languages
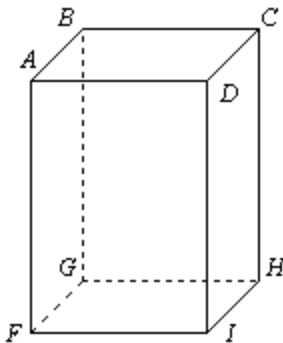
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*Write the **inverse** of the conditional statement.*
Determine whether the inverse is true *or* false.   *If it is false, find a counterexample.*

9. **Two angles measuring 180 are supplementary.**

   A. Two angles not measuring 180 are supplementary. True

   B. More than two angles measuring 180 are non-supplementary. True

   C. Two angles not measuring 180 are not supplementary. True

   D. Non-supplementary angles are two angles measuring 180. False; supplementary angles must measure 180.

Refer to the figure below.
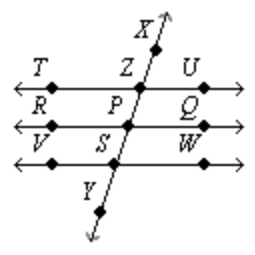

10. Name all segments parallel to $\overline{AB}$.

   F. $\overline{AD}, \overline{BC}, \overline{GH}, \overline{FI}$ G. $\overline{DI}, \overline{CH}, \overline{GH}, \overline{FI}$

   H. $\overline{CD}, \overline{FG}, \overline{HI}$ I. $\overline{GH}, \overline{AD}, \overline{FI}$

11. Name all segments skew to $\overline{GF}$.

   A. $\overline{BC}, \overline{AD}, \overline{DI}, \overline{CH}$ B. $\overline{FI}, \overline{GH}, \overline{DI}, \overline{CH}$

   C. $\overline{AD}, \overline{AB}, \overline{BC}, \overline{CD}$ D. $\overline{CD}, \overline{CH}, \overline{DI}, \overline{HI}$
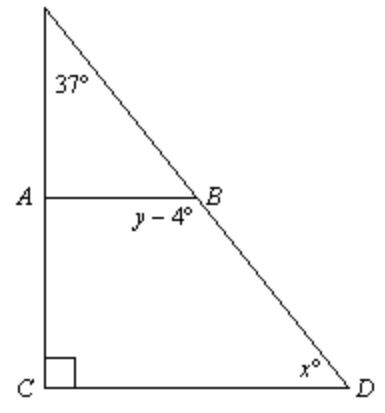
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12. In the figure, $m\angle RPZ = 95$ and $\overleftrightarrow{TU} \parallel \overleftrightarrow{RQ} \parallel \overleftrightarrow{VW}$. Find the measure of angle XZU.
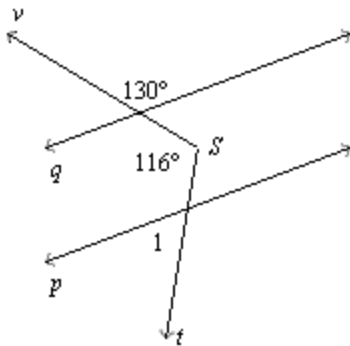
   F. 65   G. 95

   H. 85   I. 75

13. In the figure, $\overline{AB} \parallel \overline{CD}$. Find x and y.

   A. $x = 37$, $y = 147$ B. $x = 131$, $y = 53$

   C. $x = 33$, $y = 131$ D. $x = 53$, $y = 131$

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14. In the figure, $p \parallel q$. Find $m\angle 1$.

F. $m\angle 1 = 64$ G. $m\angle 1 = 40$

H. $m\angle 1 = 50$ I. $m\angle 1 = 66$

Determine whether $\overleftrightarrow{WX}$ and $\overleftrightarrow{YZ}$ are parallel, perpendicular, or neither.

15.   **W(5, 3), X(8, 8)**   **Y(4, 4), Z(7, 9)**

A. perpendicular

B. neither

C. parallel

Write an equation in slope-intercept form of the line having the given slope and y-intercept.
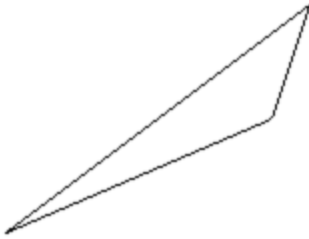
16. $m: -\dfrac{3}{5}, (0, -7)$

F. $y = \dfrac{21}{5}x$ G. $y = -\dfrac{3}{5}x - 7$

H. $y = -7x - \dfrac{3}{5}$ I. $y = -\dfrac{7}{5}x$

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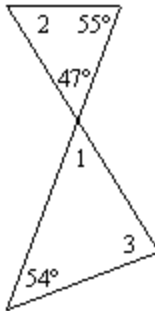*Classify the triangle by its sides. Choose the best answer.*

17.

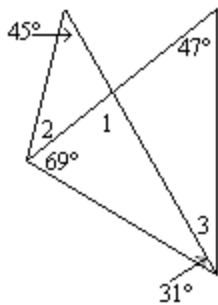A. obtuse   B. scalene

C. equilateral   D. isosceles

Find each measure.

18. $m\angle 1$, $m\angle 2$, $m\angle 3$

F. $m\angle 1 = 54$, $m\angle 2 = 78$, $m\angle 3 = 72$ G. $m\angle 1 = 47$, $m\angle 2 = 55$, $m\angle 3 = 54$

H. $m\angle 1 = 54$, $m\angle 2 = 47$, $m\angle 3 = 72$ I. $m\angle 1 = 47$, $m\angle 2 = 78$, $m\angle 3 = 79$
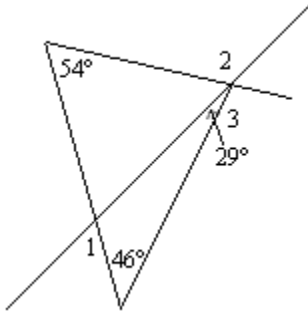
19. $m\angle 1$, $m\angle 2$, $m\angle 3$

A. $m\angle 1 = 90$, $m\angle 2 = 88$, $m\angle 3 = 33$ B. $m\angle 1 = 80$, $m\angle 2 = 45$, $m\angle 3 = 31$

C. $m\angle 1 = 90$, $m\angle 2 = 45$, $m\angle 3 = 31$ D. $m\angle 1 = 80$, $m\angle 2 = 35$, $m\angle 3 = 33$
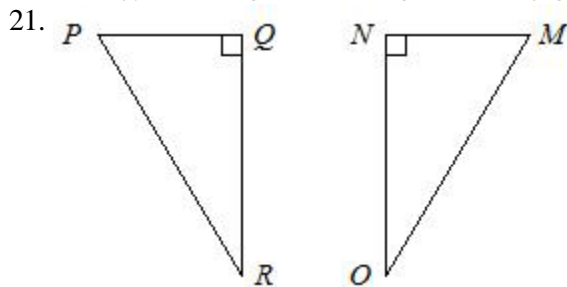
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20. $m\angle 1$, $m\angle 2$, $m\angle 3$

F. $m\angle 1 = 51$, $m\angle 2 = 100$, $m\angle 3 = 100$ G. $m\angle 1 = 75$, $m\angle 2 = 151$, $m\angle 3 = 75$
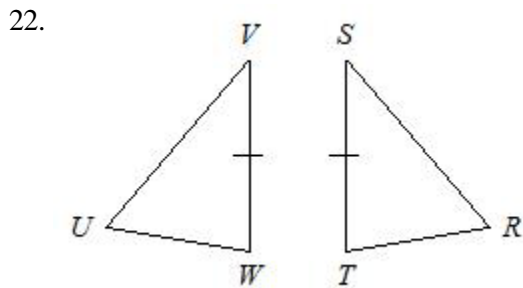
H. $m\angle 1 = 46$, $m\angle 2 = 129$, $m\angle 3 = 129$ I. $m\angle 1 = 75$, $m\angle 2 = 129$, $m\angle 3 = 100$

Identify the congruent triangles in the figure.

21.

A. $\triangle OMN \cong \triangle RPQ$ B. $\triangle MNO \cong \triangle RQP$

C. $\triangle NOM \cong \triangle RQP$ D. $\triangle NMO \cong \triangle RPQ$
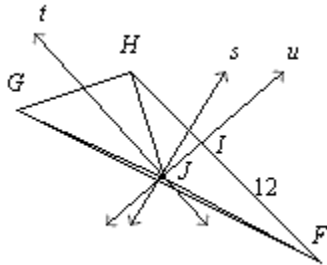
22.

F. $\triangle SRT \cong \triangle WUV$ G. $\triangle RST \cong \triangle WVU$

H. $\triangle TRS \cong \triangle WUV$ I. $\triangle STR \cong \triangle WVU$
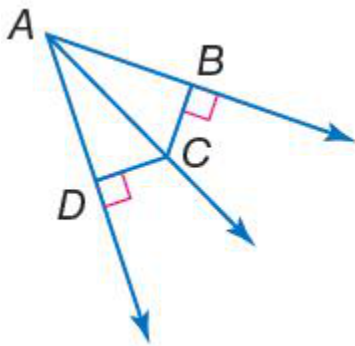
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23. Lines *s*, *t*, and *u* are perpendicular bisectors of the sides of $\triangle FGH$ and meet at *J*.

If $JG = 3x + 4$, $JH = 2y - 2$, $JF = 10$ and $HI = 2z - 4$, find *x*, *y*, and *z*.

A. $x = 2$, $y = 6$, $z = 8$ B. $x = 1$, $y = 7$, $z = 4$

C. $x = 6$, $y = 2$, $z = 8$ D. $x = 4.7$, $y = 4$, $z = 4$
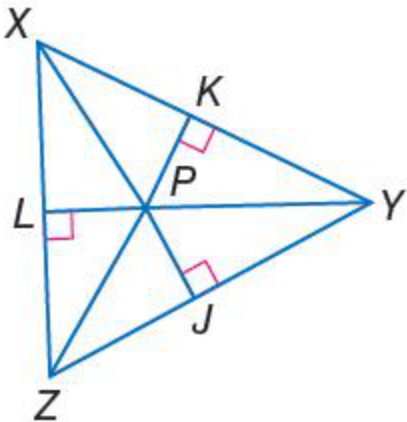
24. If $m\angle CAD = 18°$, $CD = 11$, and $BC = 11$, find $m\angle CAB$.

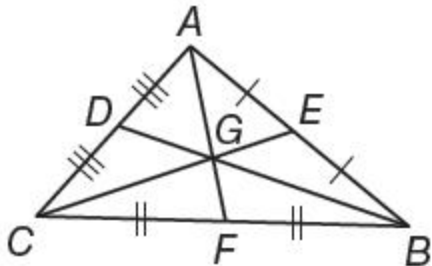

F. 18°   G. 36°

H. 72°   I. 9°

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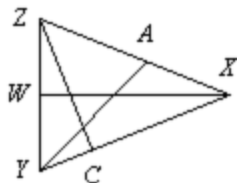25. *P* is the incenter of Δ*XYZ*. If *PY* = 10 and *JY* = 8, find *LP*.

A. 2   B. 18
C. 6   D. 13

26. In Δ*ABC* shown below, if *AG* = 16 what is *FG*?

F. 4   G. 8
H. 24   I. 16

27. $\overline{ZC}$ is an altitude, $m\angle CYW = (2x + 48)°$, and $m\angle WZC = (5x)°$. Find $m\angle WZC$.

A. 6°   B. 28°
C. 30°   D. 60°

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Determine whether the given measures can be the lengths of the sides of a triangle. Write yes, no, or maybe.

28. **11, 14.6, 18.3**

    F. Maybe

    G. No

    H. Yes
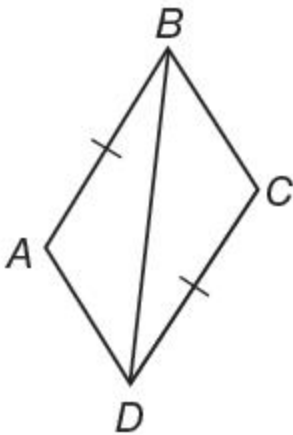
    I. Not an answer choice

29. An isosceles triangle has a base 27 units long.
    If the congruent side lengths have whole number measures, what is the shortest possible length of the sides?

    A. 13   B. 28

    C. 15   D. 55

30. In the figure below, $AD = 9.5$ and $BC = 9$. Compare $m\angle ABD$ and $m\angle BDC$.

    F. $m\angle ABD$ < $m\angle BDC$ G. $m\angle ABD < m\angle BDC$
    H. $m\angle ABD = m\angle BDC$

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Answer Key

1. B

2. F

3. C

4. I

5. B

6. H

7. A

8. I

9. C

10. H

11. A

12. H

13. D

14. I

15. C

16. G

17. B

18. I

19. D

20. I

21. A

22. H

23. A

24. F

25. C

26. G

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27. C

28. H

29. C

30. G