

ONLINE

I hope you are staying safe and enjoying your family time together.

First of all....remember that on the **Thursday and Friday before we left , I gave you AMI days 6-15.** You should already have your purple worksheets, graph paper, and formula sheets for those. For all of this work you **ONLY** need a simple calculator. **No graphing calculator is needed.** I have attached AMI days 16-25 to this letter. Hopefully I have counted the days/calendar correctly. I think AMI day 10 begins on Monday, March 30. This packet, along with the one I gave you before we left, should get you through April 20. Governor Hutchison, as of right now, says schools will be re-opening then.

If you have any questions, please contact me. My email address is...

Mandy.Brown@norfolk.k12.ar.us

Send a text to
81010

Text this message
@dk8dfc

I have also started a remind text group. Do the following steps to be added to the **Geometry** group. Give these instructions to your parents also. They can also be a part of our group!!! (It's going to be sooooo much fun!!) Once you are a part of our group, I will respond and ask you your name, so I will know who you are.

IF YOU WANT TO KNOW YOUR CURRENT GRADE AND CANNOT OPEN YOUR ESCHOOL, LET ME KNOW, AND I WILL TELL YOU WHAT IT IS. Some of you have asked how you can improve your grade. I have added all work to the computer that has been turned in to me. **NO MORE MAKE UP WORK WILL BE ACCEPTED UNDER ANY CIRCUMSTANCE.**

Here is how you can raise your grade.... **Complete your AMI packets.** You can take a picture and email it to me, Remind/text it to me, or drop it off at the school. As I receive them I will add them to the computer.

Please pass the word to your friends about this letter. I don't want to skip anyone. If the worksheets cannot be printed, write the answers on a piece of paper. If you have ANY QUESTIONS, CONTACT ME. I don't mind at all...remember my quote I always say, "I get paid to answer questions."

ONE LAST THING! I AM MISSING CALCULATORS #26 AND #29.

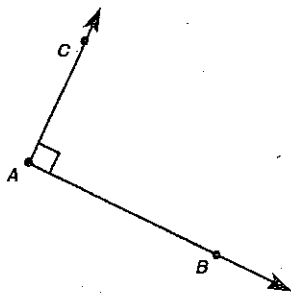
I NEED THEM AS SOON AS POSSIBLE!

Mrs. Brown

AMI Geometry: Day 16

1. Which one of the following statements is false?
- (A) A line contains at least two points.
 - (B) Through any two distinct points there exists exactly one line.
 - (C) Any three points lie on a distinct line.
 - (D) Three non-collinear points determine a plane.

Use the figure to answer question 2

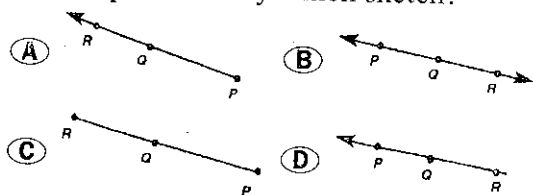


2. Which description best explains what is shown in the figure?
- (A) Two rays that are perpendicular
 - (B) Two lines that are perpendicular
 - (C) $AB = AC$
 - (D) A straight angle

3. Plane P contains points K , L , and M , but not point N . Which of the following represents the intersection of P with the plane that contains points K , L , and N ?

- (A) \overleftrightarrow{KL}
- (B) \overleftrightarrow{KN}
- (C) \overleftrightarrow{LN}
- (D) \overleftrightarrow{MN}

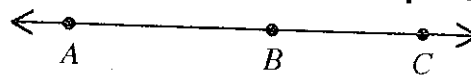
4. \overleftrightarrow{PR} is represented by which sketch?



5. What is the notation for the length of the segment between P and Q ?

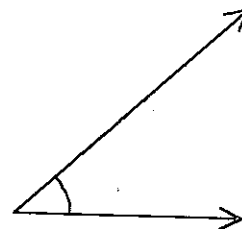
- (A) \overrightarrow{QP}
- (B) \overleftrightarrow{PQ}
- (C) \overline{PQ}
- (D) PQ

Use the figure below to answer question 6



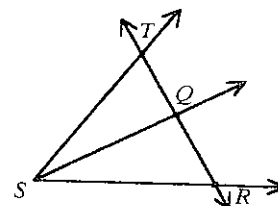
6. If $AB = 18$ and $AC = 31$, what is the length of \overline{BC} ?

Use the figure to answer question 7



7. What appears to be the correct classification for the angle shown in the figure?
- (A) right
 - (B) acute
 - (C) obtuse
 - (D) straight

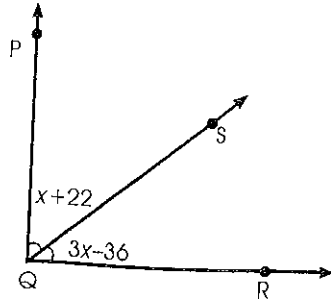
Use the figure to answer question 8



8. Assume $\angle TSR$ is not a straight angle. What three points are collinear?
- (A) points T , Q , and R
 - (B) points T , Q , and S
 - (C) points S , Q , and R
 - (D) points T , S , and R

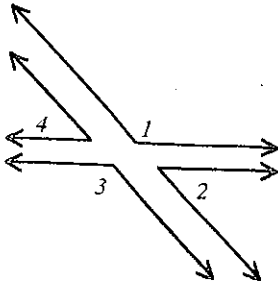


Use the figure to answer question 8.



8. If $\overline{PQ} \perp \overline{QR}$, what is the value of x ?

OPEN RESPONSE



A In the figure, $\angle 1 \cong \angle 3$, $\angle 4$ is supplementary to $\angle 1$, and $\angle 2$ is supplementary to $\angle 3$.

1. What is true about $\angle 2$ and $\angle 4$?

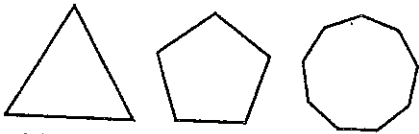
2. What reason leads to the conclusions you reached in question 1?

AMI Geometry: Day 17

1. What is the next number in the sequence?
 $-75; -71; -63; -47; \dots$

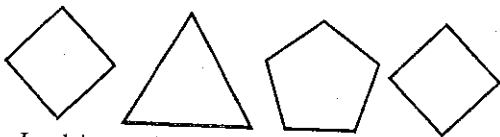
2. What is the next number in the sequence?
 $-11; -17; -15; -21; \dots$

Use the figure below to answer question 3.



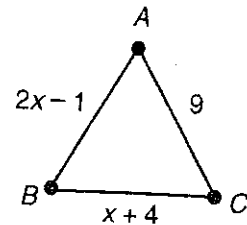
3. In this sequence of figures, how many sides should the next shape in sequence have?

Use the figure below to answer question 4.



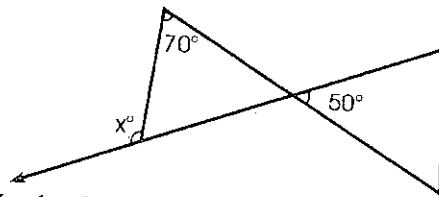
4. In this sequence of figures, how many sides should the next shape in sequence have?

Use the figure to answer question 5.



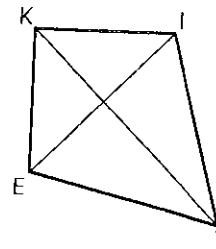
5. For what value of x is $\triangle ABC$ equilateral?

Use the figure below to answer question 6.



6. In the figure, what is the value of x ?

Use the figure to answer question 7.

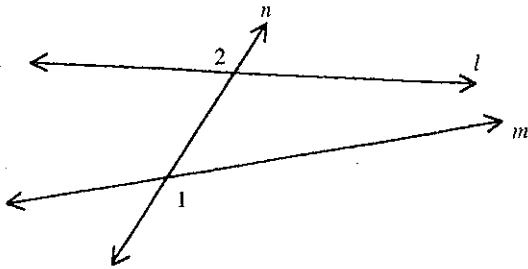


7. Quadrilateral KITE is a kite. What best describes the relationship of segments \overline{KT} and \overline{EI} ?

- (A) $KT = EI$
- (B) \overline{KT} and \overline{EI} are parallel
- (C) \overline{KT} is a perpendicular bisector of \overline{EI}
- (D) \overline{EI} is a perpendicular bisector of \overline{KT}



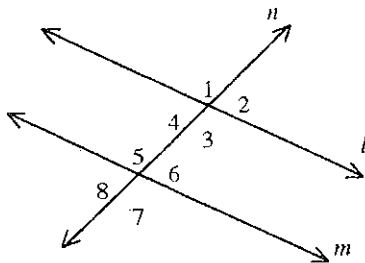
Use the figure below to answer question 1.



1. What angle relationship best describes $\angle 1$ and $\angle 2$?

- (A) corresponding angles
- (B) consecutive interior angles
- (C) alternate interior angles
- (D) alternate exterior angles

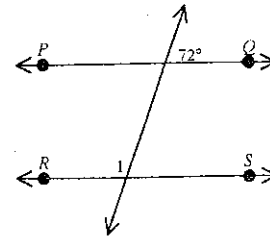
2. What angle relationship best describes $\angle 6$ and $\angle 2$?



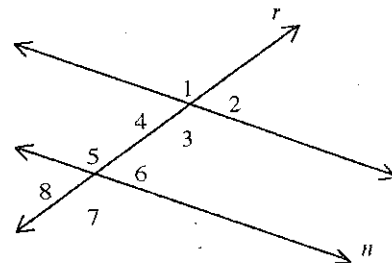
- (A) consecutive interior angles
- (B) corresponding angles
- (C) alternate interior angles
- (D) alternate exterior angles

Use the figure to answer question 3.

3. If \overleftrightarrow{PQ} and \overleftrightarrow{RS} are parallel, what is $m\angle 1$?



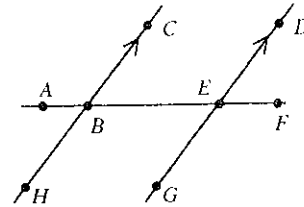
Use the figure below to answer question 4.



4. In the figure, $l \parallel n$ and r is a transversal. Which of the following is not necessarily true?

- (A) $\angle 7 \cong \angle 4$
- (B) $\angle 2 \cong \angle 6$
- (C) $\angle 8 \cong \angle 2$
- (D) $\angle 5 \cong \angle 3$

Use the figure to answer question 5.



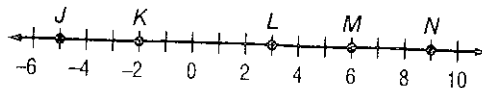
5. In the figure, $m\angle ABC = 125^\circ$. Which statement is false?

- (A) $m\angle GEF = 125^\circ$
- (B) $m\angle DEF = 125^\circ$
- (C) $\angle HBF$ and $\angle AED$ are alternate interior angles
- (D) $\angle ABC$ and $\angle AED$ are corresponding angles

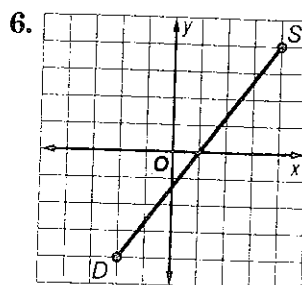
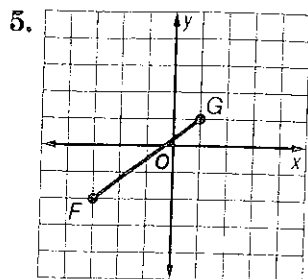
AMI Geometry: Day 18

Use the number line to find each measure.

1. LN
2. JL
3. KN
4. MN



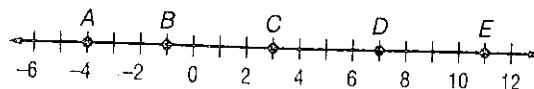
Find the distance between each pair of points.



7. $K(2, 3), F(4, 4)$
8. $C(-3, -1), Q(-2, 3)$
9. $Y(2, 0), P(2, 6)$
10. $W(-2, 2), R(5, 2)$
11. $A(-7, -3), B(5, 2)$
12. $C(-3, 1), Q(2, 6)$

Use the number line to find the coordinate of the midpoint of each segment.

13. \overline{DE}
14. \overline{BC}
15. \overline{BD}
16. \overline{AD}



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

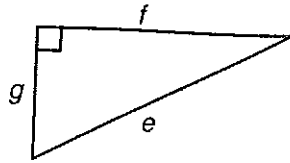
17. $T(3, 1), U(5, 3)$
18. $J(-4, 2), F(5, -2)$

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

19. $N(2, 0), P(5, 2)$
20. $N(5, 4), P(6, 3)$
21. $Q(3, 9), P(-1, 5)$

AMI Geometry: Day 19

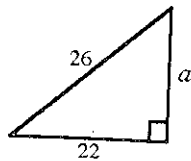
Use the figure to answer question 1.



1. For the triangle shown, which of the following equations is true by the Pythagorean Theorem?

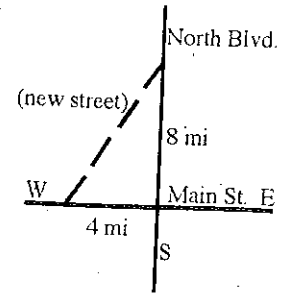
- (A) $e^2 + f^2 = g^2$ (B) $e = f + g$
 (C) $f^2 - g^2 = e^2$ (D) $e^2 = f^2 + g^2$

Use the figure to answer question 2.



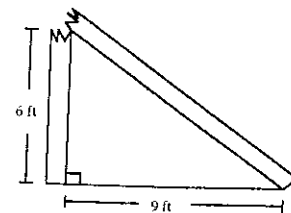
2. What is the approximate value of a to 3 decimal places?
3. Assuming it is straight, how long is a string reaching from the top of a 20-ft pole to a point 10 ft from the bottom of the pole?
- (A) 30 ft (B) $\sqrt{500}$ ft
 (C) $10 + \sqrt{500}$ ft (D) $30 + \sqrt{500}$ ft
4. How long is a ladder reaching from the top of a 15-ft wall to a point 13 ft from the base of the wall?
- (A) $\sqrt{394}$ ft (B) $\sqrt{404}$ ft
 (C) $\sqrt{66}$ ft (D) $\sqrt{56}$ ft

Use the figure to answer question 5.



5. The city commission wants to construct a new street that connects Main Street and North Boulevard as shown in the diagram below. The construction cost has been estimated at \$120 per linear foot. Find the estimated cost for constructing the street. (1 mile = 5280 ft)
- (A) \$1073 (B) \$47,226
 (C) \$633,600 (D) \$5,667,091

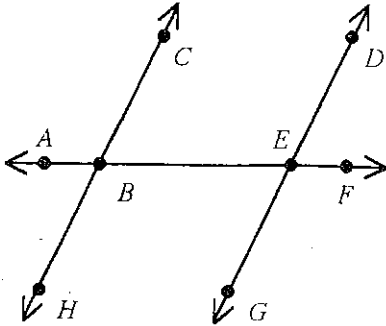
Use the figure to answer question 7.



7. A telephone pole breaks and falls as shown. To the nearest foot, what was the original height of the pole?

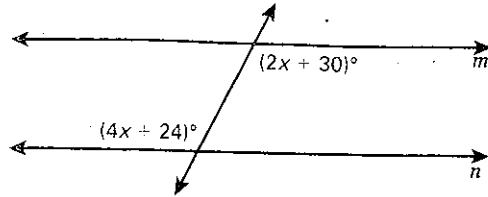


Use the figure below to answer question 6.



6. In the figure shown, $\overleftrightarrow{HC} \parallel \overleftrightarrow{GD}$ and $m\angle ABC = 113^\circ$. Which of the following statements is false?

- (A) $m\angle GEF = 113^\circ$
- (B) $m\angle DEF = 67^\circ$
- (C) $\angle HBF$ and $\angle AED$ are alternate exterior angles.
- (D) $\angle ABH$ and $\angle AEG$ are corresponding angles.



7. In the diagram, $m \parallel n$ with the angle measures indicated. What is the value of x ?

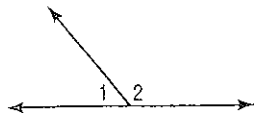


8. In the diagram, how many lines can be drawn through points A and B parallel to line k ?

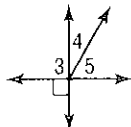
AMI Geometry: Day 20

Find the measure of each numbered angle
your work.

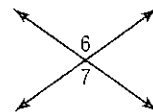
1. $m\angle 1 = x + 10$
 $m\angle 2 = 3x + 18$



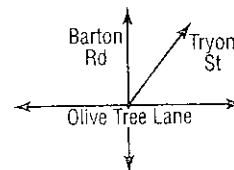
2. $m\angle 4 = 2x - 5$
 $m\angle 5 = 4x - 13$



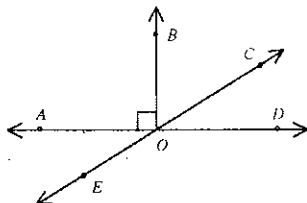
3. $m\angle 6 = 7x - 24$
 $m\angle 7 = 5x + 14$



5. **STREETS** Refer to the figure. Barton Road and Olive Tree Lane form a right angle at their intersection. Tryon Street forms a 57° angle with Olive Tree Lane. What is the measure of the acute angle Tryon Street forms with Barton Road?



Use the figure to
answer questions
1 and 2.



1. Which angle or angles are adjacent to $\angle BOC$?

- (A) $\angle DOE$
(B) $\angle DOB$
(C) $\angle BOA$, $\angle BOE$ and $\angle COD$
(D) $\angle COD$ and $\angle AOE$

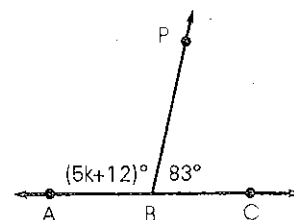
2. Which angle or angles are complementary to $\angle COD$.

- (A) $\angle DOE$
(B) $\angle BOC$
(C) $\angle AOC$ and $\angle DOE$
(D) $\angle DOC$ and $\angle AOE$

4. If $\angle 1$ and $\angle 2$ form a linear pair and $m\angle 2 = 67^\circ$, what is $m\angle 1$?

5. Let $\angle 1$ and $\angle 2$ be supplementary angles and let $\angle 1$ and $\angle 3$ be vertical angles. If $m\angle 2 = 72^\circ$, then what is $m\angle 3$?

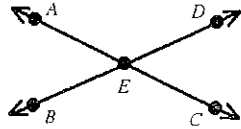
Use the figure to
answer question 6.



6. $\angle PBA$ and $\angle PBC$ are a linear pair of angles. What is the value of k ?

AMI Geometry: Day 21

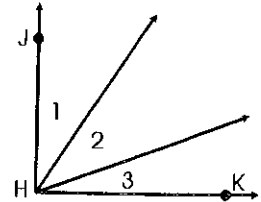
Use the figure to answer question 3.



3. If $m\angle AED = 122^\circ$, which of the following statements is false?

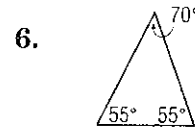
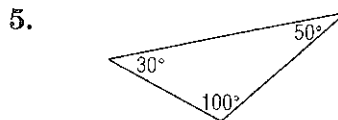
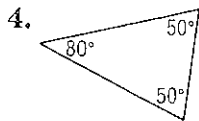
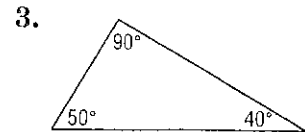
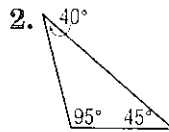
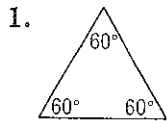
- (A) $\angle BEC$ and $\angle CED$ are adjacent angles.
- (B) $\angle AEB$ and $\angle DEC$ are vertical angles.
- (C) $m\angle BEC = 58^\circ$
- (D) $m\angle AEB = 58^\circ$

Use the figure to answer question 7.

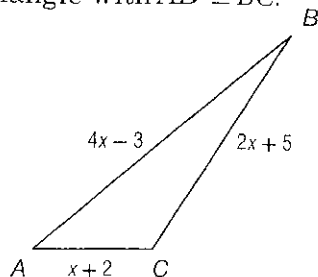


7. Given that $m\angle 1 = m\angle 3 = 32^\circ$ and $\vec{HJ} \perp \vec{HK}$, what is $m\angle 2$?

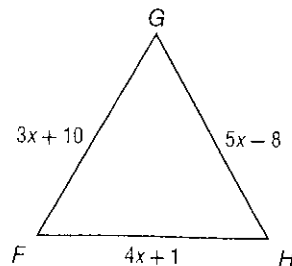
Classify each triangle as *acute*, *equiangular*, *obtuse*, or *right*.



11. Find x and the length of each side if $\triangle ABC$ is an isosceles triangle with $\overline{AB} \cong \overline{BC}$.

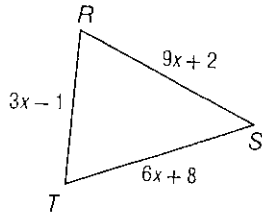


12. Find x and the length of each side if $\triangle FGH$ is an equilateral triangle.

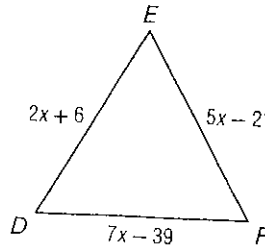


AMI Geometry: Day 22

13. **ALGEBRA** Find x and the length of each side if $\triangle RST$ is an isosceles triangle with $\overline{RS} \cong \overline{TS}$.



14. **ALGEBRA** Find x and the length of each side if $\triangle DEF$ is an equilateral triangle.



B Imagine that you are creating quilting blocks out of squares.

1. If a block has a side of length 10 centimeters, how long is each diagonal to the nearest tenth of a centimeter?
2. If a block is to have a diagonal of length 10 centimeters, how long must be each side to the nearest tenth of a centimeter?

Use $\odot D$ to find the length of each arc. Round to the nearest hundredth.

15. \widehat{LM} if the radius is 5 inches

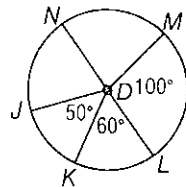
16. \widehat{MN} if the diameter is 3 yards

17. \widehat{KL} if $JD = 7$ centimeters

18. \widehat{NJK} if $NL = 12$ feet

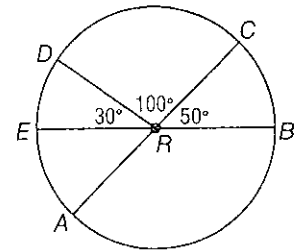
19. \widehat{KLM} if $DM = 9$ millimeters

20. \widehat{JK} if $KD = 15$ inches



AMI Geometry: Day 23

\overline{AC} and \overline{EB} are diameters of $\odot R$. Identify each arc as a *major arc*, *minor arc*, or *semicircle* of the circle. Then find its measure.



1. $m\widehat{EA}$

2. $m\widehat{CB}$

3. $m\widehat{DC}$

4. $m\widehat{DEB}$

5. $m\widehat{AB}$

6. $m\widehat{CDA}$

\overline{PR} and \overline{QT} are diameters of $\odot A$. Find each measure.

7. $m\widehat{UPQ}$

8. $m\widehat{PQR}$

9. $m\widehat{UTS}$

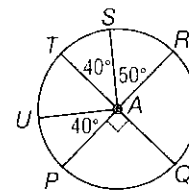
10. $m\widehat{RS}$

11. $m\widehat{RSU}$

12. $m\widehat{STP}$

13. $m\widehat{PQS}$

14. $m\widehat{PRU}$

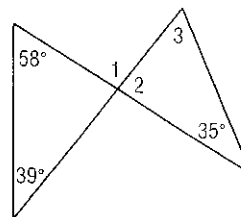


Find each measure.

3. $m\angle 1$

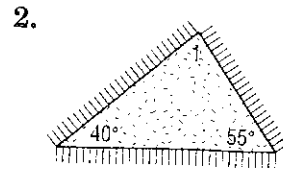
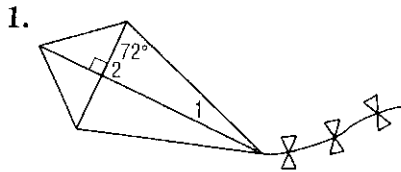
4. $m\angle 2$

5. $m\angle 3$



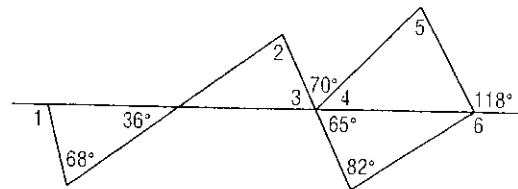
AMI Geometry: Day 24

Find the measure of each numbered angle.



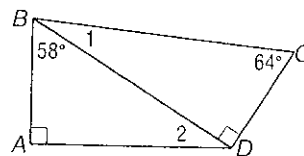
Find each measure.

- 6. $m\angle 1$
- 7. $m\angle 4$
- 8. $m\angle 3$
- 9. $m\angle 2$
- 10. $m\angle 5$
- 11. $m\angle 6$

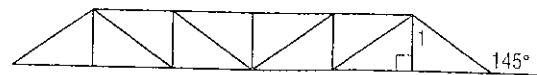


Find each measure.

- 12. $m\angle 1$
- 13. $m\angle 2$

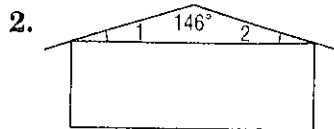


14. **CONSTRUCTION** The diagram shows an example of the Pratt Truss used in bridge construction. Use the diagram to find $m\angle 1$.



AMI Geometry: Day 25

Find the measure of each numbered angle.

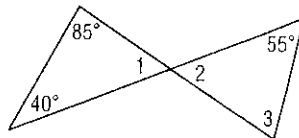


Find each measure.

3. $m\angle 1$

4. $m\angle 2$

5. $m\angle 3$

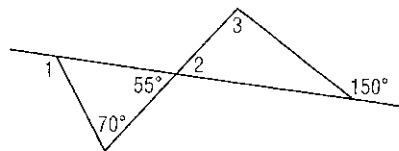


Find each measure.

6. $m\angle 1$

7. $m\angle 2$

8. $m\angle 3$



Find each measure.

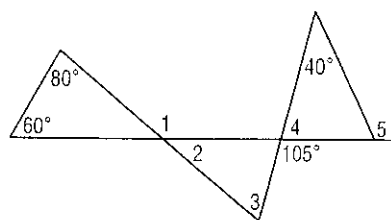
9. $m\angle 1$

10. $m\angle 2$

11. $m\angle 3$

12. $m\angle 4$

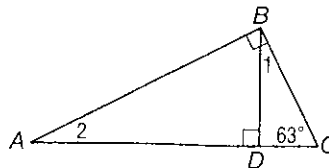
13. $m\angle 5$



Find each measure.

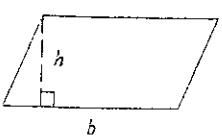
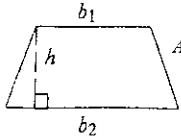
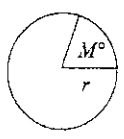
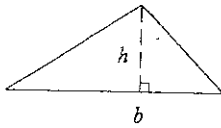
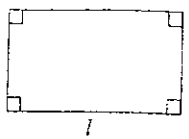
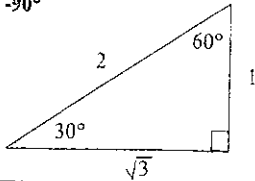
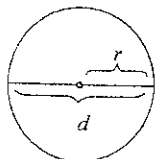
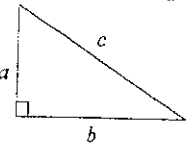
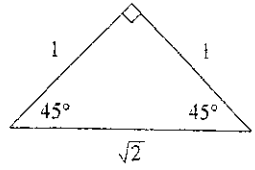
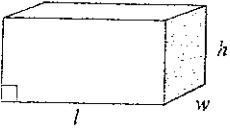
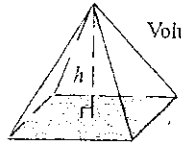
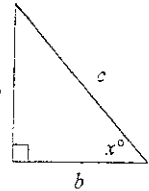
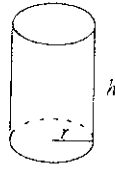
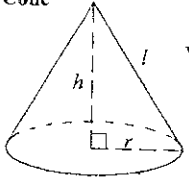
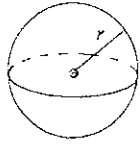
14. $m\angle 1$

15. $m\angle 2$



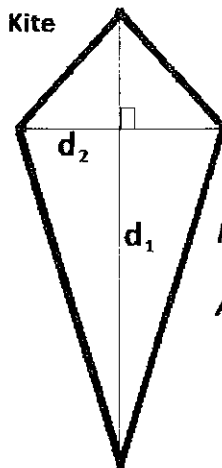


MATHEMATICS REFERENCE SHEET

Parallelogram  $P =$ sum of all sides $A = bh$	Trapezoid  $A = \frac{h(b_1 + b_2)}{2}$	Arc and Sector  Arc Length = $\left(\frac{M}{360}\right) \times 2\pi r$ Sector area = $\left(\frac{M}{360}\right) \times \pi r^2$
Triangle  $P =$ sum of all sides $A = \frac{bh}{2}$	Rectangle  $P = 2l + 2w$ $A = lw$	$30^\circ - 60^\circ - 90^\circ$ 
Circle  $C = 2\pi r$ $C = \pi d$ $A = \pi r^2$ $\pi \approx 3.14$	Pythagorean Theorem $a^2 + b^2 = c^2$ 	$45^\circ - 45^\circ - 90^\circ$ 
Rectangular Solid  Volume = lwh Surface area = $2lw + 2lh + 2wh$	Pyramid $B =$ area of base (shaded) Volume = $\frac{Bh}{3}$ 	Trigonometric Ratios  $\sin x^\circ = \frac{a}{c}$ $\cos x^\circ = \frac{b}{c}$ $\tan x^\circ = \frac{a}{b}$
Cylinder  Volume = $\pi r^2 h$ Surface area = $2\pi rh + 2\pi r^2$	Cone $l =$ slant height Volume = $\frac{\pi r^2 h}{3}$  Surface area = $\pi rl + \pi r^2$	Sphere  Volume = $\frac{4\pi r^3}{3}$ Surface area = $4\pi r^2$

Miscellaneous Formulas	Area of an equilateral triangle	$A = \frac{s^2\sqrt{3}}{4}$ $s =$ length of a side
	Distance	rate \times time
	Interest	principal \times rate \times time in years
	Sum of the angles of a polygon having n sides	$(n - 2)180^\circ$
	Distance between points on a coordinate plane	$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
	Midpoint	$\left(\frac{x_2 + x_1}{2}, \frac{y_2 + y_1}{2}\right)$
	Slope of a nonvertical line (where $x_2 \neq x_1$)	$m = \frac{y_2 - y_1}{x_2 - x_1}$
	Slope intercept (where $m =$ slope, $b =$ intercept)	$y = mx + b$
	Last term of an arithmetic series	$a_n = a + (n - 1)d$
	Last term of a geometric series (where $n \geq 1$)	$a_n = ar^{n-1}$
Quadratic formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	
Area of a square	$A = s^2$	
Volume of a cube	$V = s^3$	
Area of a regular polygon	$A = \frac{1}{2}ap$ $a =$ apothem, $p =$ perimeter	

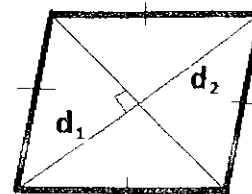
Kite



$$P = \text{sum of all sides}$$

$$A = \frac{1}{2} \cdot d_1 \cdot d_2$$

Rhombus



$$P = \text{sum of all sides}$$

$$A = \frac{1}{2} \cdot d_1 \cdot d_2$$