Mr. McCaffrey's Big Tamale Geometry CST Review Test.

_		c noice e choice that best completes the statement or ans	swer	s the question.					
	1.	In the statement "If a figure has three sides, it is a triangle," the phrase "it is a triangle" is which of the following?							
		a. hypothesis		conditional					
		b. conclusion	d.	converse					
	2.	Which figure is a counterexample to the statement below?							
		For any quadrilateral, the lengths of its diagonals are equal.							
		a.	c.						
		b.	d.						
	3.	Which of the following can be used to prove the	nat a	conditional statement is false?					
		a. counterexample	c.	conclusion					
		b. converse	d.	hypothesis					
	4.	Which figure can serve as a counterexample to	conjecture below?						
		If one pair of opposite sides of a quadrilatera other pair is congruent, then the quadrilateral i							
		a. square	c.	rhombus					
		b. rectangle	d.	trapezoid					
	5.	Suppose a conditional statement is true. Which	of:	the following is true about its converse?					
	٦.	a. It is true.		It is possibly true.					
		b. It is false.		It is neither true nor false.					
	6.	Which statement is the converse of the statement.a. An octagon has eight sides.b. An eight-sided polygon is an octagon.c. If a polygon is an octagon, then it has eight.d. If a polygon is an octagon, then it has eight.	t sid						
	7.	Given: $ABCD$ is a parallelogram with diagonal a. $\underline{\overline{AC}} \perp \underline{\overline{BD}}$ b. $\underline{\overline{AC}} \cong \underline{\overline{BD}}$		\overline{C} and \overline{BD} . Which of the following must be true? \overline{AC} // \overline{BD} \overline{D} bisects \overline{BD} .					

8. Given the statements below, which conclusion is valid?

All birds have feathers. A penguin is a bird.

a. All penguins have feathers.

c. All penguins can fly.

b. All birds are penguins.

d. All birds lay eggs.

9. If the conclusion is false in a valid argument, then which of the following must be false?

a. inverse

c. argument

b. converse

d. hypothesis

10. Which of the following is the inverse of the statement "A square is a rectangle"?

a. If a figure is not a square, then it is not a rectangle.

b. If a figure is not a rectangle, then it is not a square.

c. A rectangle is a square.

d. Some rectangles are squares.

11. Write the following statement as a conditional statement: "All fish can swim."

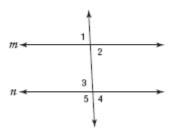
a. If an animal is a fish, then it can swim.

b. If an animal can swim, then it is a fish.

c. If an animal cannot swim, then it is not a fish.

d. If an animal is not a fish, then it cannot swim.

___ 12. In the figure below, line *m* is parallel to line *n*. Which of the following does *not* have to be true?



a.
$$\angle 1 \cong \angle 2$$

b.
$$\angle 1 \cong \angle 3$$

c.
$$\angle 1 \cong \angle 4$$

___ 13. How many counterexamples are needed to disprove the conjecture "Two lines in a plane always intersect at exactly one point"?

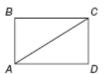
a. 0

c. 2

b. 1

d. many more than 2

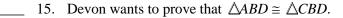
14. Given: $\angle B$ and $\angle D$ are right angles.



Which reason justifies the statement $m \angle B = m \angle D$?

a. definition of rectangle

- b. definition of hypotenuse
- c. equality of right angles
- d. the sum of the measures of the angles of a 180° triangle





One step in Devon's proof is the statement $\overline{BD} \cong \overline{BD}$. Which reason justifies that statement?

- a. definition of midpoint
- b. congruency of corresponding parts of congruent triangles
- c. Substitution Property
- d. Reflexive Property

16. In parallelogram ABCD, diagonals \overline{AC} and \overline{BD} intersect at E. Which of the following statements does *not* have to be true?

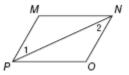
a.
$$\angle AEB \cong \angle DEC$$

c.
$$\angle BCE \cong \angle DAE$$

b.
$$\angle AED \cong \angle BEC$$

d.
$$\angle ABD \cong \angle BCD$$

17. Jasmine wants to prove that $\triangle MNP \cong \triangle OPN$ in the parallelogram MNOP.

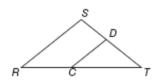


Which of the following supports Jasmine's assertion that $\angle 1 \cong \angle 2$?

- a. If two parallel lines are intersected by a transversal, then alternate interior angles are congruent.
- b. If two parallel lines are intersected by a transversal, then corresponding angles are supplementary.
- c. If a quadrilateral is a parallelogram, then its opposite sides are congruent.
- d. If a quadrilateral is a parallelogram, then its opposite angles are congruent.

18. Which triangles must be congruent?

- a. two similar right triangles
- b. two obtuse triangles with congruent bases
- c. two equilateral triangles with congruent bases
- d. two similar isosceles triangles
- _ 19. Which of the following would be enough to prove $\triangle CDT \sim \triangle RST$?



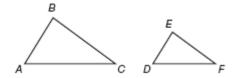
a.
$$\angle SRT \cong \angle STR$$

b.
$$\angle SRT \cong \angle DCT$$

c.
$$\overline{RC} \cong \overline{CT}$$

d.
$$\overline{SD} \cong \overline{D7}$$

_ 20. In the triangles below, $\angle ABC \cong \angle DEF$.



Which of the following is sufficient to prove that the triangles are similar?

a.
$$\overline{AB} \cong \overline{DE}$$

c.
$$\angle BAC \cong \angle EDF$$

b.
$$\overline{AB} \cong \overline{BC}$$

d.
$$\angle ABC \cong \angle DEF$$

21. In the quadrilateral *ABCD*, diagonals \overline{AC} and \overline{BD} bisect each other. Which statement does *not* have to be true?

a.
$$\overline{AB} \cong \overline{CD}$$

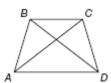
b.
$$\triangle ABD \cong \triangle CDB$$

- d. ABCD is a parallelogram.
- 22. In which of the following triangles are corresponding angles congruent and corresponding sides proportional?
 - a. corresponding

c. scalene

b. congruent

- d. similar
- _ 23. In the quadrilateral *ABCD*, $\overline{AB} \cong \overline{CD}$, and $\overline{AC} \cong \overline{BD}$.



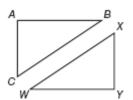
Which postulate can be used to prove $\triangle ABD \cong \triangle DCA$?

a. SAS

c. SSS

b. ASA

- d. AAS
- ____ 24. Given: $\overline{AB} \cong \overline{WY}$ and $\overline{AC} \cong \overline{XY}$.



Which is enough to prove that the triangles are congruent?

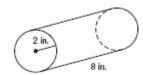
a. $\overline{CB} \cong \overline{WX}$

c. $\angle CAB \cong \angle WXY$

b. $\overline{CB} \cong \overline{XY}$

d. $\angle ABC \cong \angle YWX$

25. A cylinder has radius 2 inches and height 8 inches.



If you needed to paint the entire cylinder, with the exception of the two bases, what area would you paint?

a. 10π sq in.

c. 32π sq in.

b. 16π sq in.

d. 64π sq in.

26. Circle A has radius 3 cm. Circle B has diameter 8 cm. What is the sum of their areas?

a. $11\pi \text{ cm}^2$

c. $25 \pi \text{ cm}^2$

b. $24 \pi \text{ cm}^2$

d. $73\pi \text{ cm}^2$

 $\underline{}$ 27. Circle A has area 81π square inches. Find the circumference of circle A.

a. 9π in.

c. 81π in.

b. 18π in.

d. 162π in.

28. A student knows that the area of a parallelogram is found by multiplying the base by the height. Drawing the diagonal for the parallelogram is one way to illustrate which formula?

a. area of a triangle

c. perimeter of a parallelogram

b. area of a rectangle

d. area of a trapezoid

29. A rectangle has an area 24 cm² and length 3 cm. What is its perimeter?

a. 72 cm

c. 11 cm

b. 22 cm

d. 8 cm

30. A truck tire has a diameter of 3 feet. How far will the truck travel in 20 rotations?

a. 30π ft

c. 120π ft

b. 60π ft

d. 180π ft

__ 31. A triangle has a base 12 inches long and an area of 36 square inches. Find the length of the altitude.

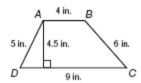
a. 3 in.

c. 5 in.

b. 4 in.

d. 6 in.

____ 32. Find the area of trapezoid *ABCD*.



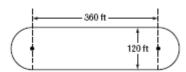
a. 24 sq in.

c. 29.25 sq in.

b. 28.5 sq in.

d. 40.5 sq in.

- 33. A prism has volume 90 cm³. It has a square base whose area is 9 cm². What is its surface area? a. 138 cm^2 c. 270 cm^2 b. 198 cm² d. 810 cm² 34. Which of the following techniques can be used to find the volume of any right prism or cylinder? find the area of each side and multiply by the height b. multiply the length and the width and the height c. double the area of each side and add the results together d. find the area of the base and multiply by the height 35. A carpenter needs 42 feet of crown molding to finish the perimeter of a rectangular room. One side of the room is 12 feet long. How much carpet will he need to finish the room? a. 64 ft^2 c. 144 ft^2 b. 108 ft² d. 504 ft²
 - _ 36. A school put in a new football field. The field has a running track around its perimeter. The dimensions are shown in the figure below.



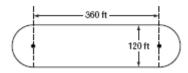
If the groundskeeper could mow 400 square feet per minute, how long would it take her to mow the entire field, to the nearest minute?

a. 100 minutes

c. 136 minutes

b. 108 minutes

- d. 185 minutes
- 37. A runner wants to jog around the perimeter of the field. How far will the runner go in one lap?

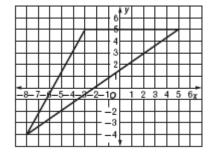


a. 720 ft

c. 1005 ft

b. 960 ft

- d. 1097 ft
- 38. The triangle shown on the coordinate plane below has vertices at (-3, 5), (-8, -4) and (5, 5).



What is its area, in square units?

	a. 24 c. b. 32 d.	
39.	a. 30 sq in.	ng. Find the area, to the nearest square inch. 50 sq in. 100 sq in.
40.	use tiles that are 9 inches square. How many tiles a. 480 c.	
41.	Which of the following figures will have the great a. a scalene triangle with perimeter 54 in., base 2 b. a rhombus with side 13 in., short diagonal 10 c. a trapezoid with short base 12 in., long base 1 d. a parallelogram with short side 12 in., long side	20 in., and height 10 in. in., and long diagonal 24 in. 6 in., and height 8 in.
42.	Which of the following sketches does <i>not</i> illustrat a. c. b. d.	
43.	Figure ABCD is a rhombus. Find its area.	
		24 sq in. 60 sq in.
44.	Isosceles trapezoid <i>EFGH</i> has area 80 cm ² , height	20 cm, and legs 22 cm. One of the bases is 5 cm. How long

45. If the base of parallelogram MNOP is 1 inch less than twice its height, which expression represents the area of the parallelogram?

a. (x)(2x-1)

is the remaining base?

c. 20 cm

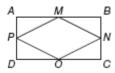
d. 24 cm

b. 2(2x-1)

a. 3 cm

b. 4 cm

46. Rectangle *ABCD* has a length of 24 cm and a width of 16 cm. Find the area of the inscribed rhombus *MNOP*.



a. 80 cm^2

c. 192 c

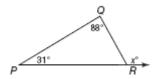
b. 96 cm²

- d. 384 cm
- 47. Carlos has developed software that allows the user to instantly find the lengths of all sides of any polygon. Which of the following figures needs more information before its area can be calculated?
 - a. right triangle

c. square

b. rectangle

- d. rhombus
- 48. A kite has one diagonal 12 inches long and another diagonal 8 inches long. Which figure has the same area as the kite?
 - a. rectangle with length 12 in. and width 8 in.
 - b. triangle with base 12 in. and height 8 in.
 - c. parallelogram with base 12 in. and height 8 in.
 - d. square with side 10 in.
- $\underline{\hspace{1cm}}$ 49. What is the value of x?

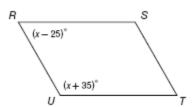


a. 61

c. 119

b. 92

- d. 149
- 50. In the figure below, $\overline{RS} \parallel \overline{TU}$.



What is the value of x?

a. 60

c. 85

b. 65

- d. 90
- 51. Two exterior angles of a triangle measure 153° and 105°. Which could *not* be an interior angle measure of the triangle?
 - a. 27°

c. 78°

b. 75°

d. 102°

 52.	If the measure of an exterior angle of a regular a. 3 b. 4	poly c. d.	
 53.	A regular hexagon is shown below.		



What is the value of x?

- a. 40
- b. 70

- c. 120
- d. 130

54. What is the value of x?



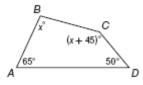
- a. 22
- b. 47

- c. 69
- d. 111
- 55. The sum of the interior angles of a polygon is two times the sum of its exterior angles. What type of polygon is it?
 - a. triangle

c. hexagon

b. quadrilateral

- d. octagon
- 56. What is $m \angle C$ in the quadrilateral shown below?



- a. 65°
- b. 100°

- c. 135°
- d. 145°
- 57. A regular pentagon is shown below.



What is the value of x?

a. 41

c. 77

	b. 72	d.	103				
 58.	angle of the triangle?						
	a. 96°	c.	131°				
	b. 119°	d.	145°				
 59.	What is the value of x ?						
	116°						
	a. 26	c.	64				
	b. 54		154				
60	TC.1		. (200 1				
 60.	Ę .						
	a. 46b. 72		82 108				
	0. 72	u.	108				
 61.	Two exterior angles of a quadrilateral measure exterior angles?	112	° and 38°. Which could be the measures of the other two				
	a. 90°, 100°	c.	100°, 110°				
	b. 100°, 100°	d.	150°, 150°				
 62.	Fayad is using a straightedge and a compass to	do 1	the construction shown below.				
	×						
	A [◆] B						
	×						
	Which <i>best</i> describes Fayad's construction? a. bisecting an angle	C					
		c.	making a line parallel to AB				
	b. bisecting a segment	d.	making a line congruent to AD				
 63.	Anna wants to use a straightedge and a compass	s to	construct an angle congruent to $\angle R$ shown below.				

What is the first step she should take?

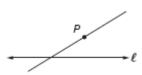
- a. Use a straightedge to draw a ray.
- b. Use a protractor to measure $\angle R$.

- c. Adjust the compass so that it is the width of the largest part of $\angle R$.
- d. From the vertex of $\angle R$, draw an arc through one side of the angle.
- ____ 64. Tanesha is constructing a line parallel to line ℓ through point *P*. Which of the following should be her first step?

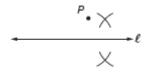
a.



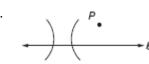
c.



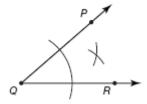
b.



d.

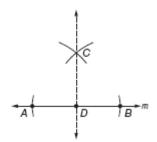


- _ 65. Jacob plans to use a straightedge and a compass to construct a line that is perpendicular to line ℓ and passes through point J, which is a point *not* on ℓ . What is the first step he should take?
 - a. From point J, draw an arc that intersects line ℓ in two different places.
 - b. From point J, draw an arc above J and an arc below J.
 - c. Draw a line through point J intersecting line ℓ .
 - d. Draw a line through point J parallel to line ℓ .
- _____ 66. Emily is using a straightedge and a compass to do the construction shown below.



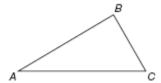
Which best describes Emily's construction?

- a. a line through P parallel to \overline{QR}
- c. a bisector of \overline{QR}
- b. a line through *P* intersecting \overline{QR}
- d. a bisector of $\angle Q$
- 67. What is the first step in constructing a line perpendicular to line m through point D?



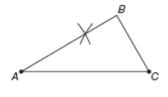
- a. Draw line \overrightarrow{CD} .
- b. From point A, draw an arc through point B.
- c. From point D, draw equal arcs that intersect at A and B.

- d. From points A and B, draw equal arcs that intersect at C.
- 68. Carlos plans to use a straightedge and compass to construct a perpendicular bisector of \overline{AC} in $\triangle ABC$ shown below.

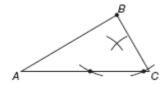


Which shows the construction?

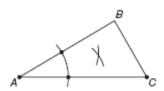
a.



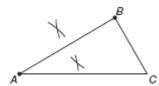
c.



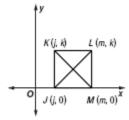
b.



d.



____ 69. What are the coordinates of the point of intersection of the diagonals of *JKLM*?



a.
$$\left(\frac{m}{2}, \frac{k}{2}\right)$$

b.
$$\left(\frac{j}{2}, \frac{k}{2}\right)$$

c.
$$\left(\frac{j+m}{2}, \frac{k}{2}\right)$$

d.
$$\left(\frac{j+m}{2}, \frac{j+k}{2}\right)$$

- 70. What type of triangle is formed by the points P(1, 6), Q(-2, 3), and R(8, -1)?
 - a. right

c. isosceles

b. acute

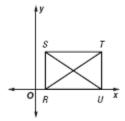
- d. equilateral
- 71. What type of figure is formed by the points F(-2, 1), G(0, 5), H(6, 5), and J(4, 1)?
 - a. square

c. trapezoid

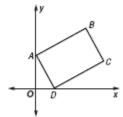
b. rectangle

d. parallelogram

72. Given that quadrilateral RSTU is a parallelogram, which is necessary in order to conclude that RSTU is a rectangle?

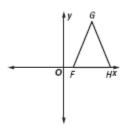


- (slope \overline{SU})(slope \overline{RT}) = 1
- (slope SU)(slope RT) = -1
- distance from R to T = distance from R to U
- d. distance from R to T = distance from S to U
- 73. The figure below shows rectangle *ABCD*.



Which is a true statement?

- a. (slope \overline{AB})(slope \overline{BC}) = -1
- b. (slope \overline{AB})(slope \overline{BC}) = 1
- c. slope \overline{AB} = slope \overline{BC} d. slope \overline{AB} = 2(slope \overline{BC})
- 74. The figure below shows $\triangle FGH$.



Which statement would prove that $\triangle FGH$ is an isosceles triangle?

- (slope \overline{FG})(slope \overline{GH}) = 1
- b. (slope \overline{FG})(slope \overline{GH}) = -1
- c. distance from F to G = distance from G to H
- d. distance from F to G = -(distance from <math>G to H)
- 75. What type of triangle is formed by the points J(-3, 5), K(1, 10), and L(4, 0)?
 - a. right

c. isosceles

b. scalene

d. equilateral

76. The diameter of a circle has endpoints at (1, -1) and (5, 5). What are the coordinates of the center of the circle?

a. (6, 4)

c. (2, 3)

b. (4, 6)

d. (3, 2)

____ 7

77. A figure is formed by the points A(0, 0), B(a, 0), C(a, a), and D(0, a). What type of figure is formed?

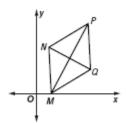
a. square

c. kite

b. triangle

d. trapezoid

78. The figure below shows parallelogram MNPQ.



Which statement would prove that MNPQ is a rhombus?

a. (slope \overline{MP})(slope \overline{NQ}) = 1

b. (slope \overline{MP})(slope \overline{NQ}) = -1

c. distance from N to Q = distance from M to P

d. distance from N to $Q = \frac{1}{2}$ (distance from M to P)

79. What type of figure is formed by the points W(-1, 6), X(5, 6), Y(2, 3), and Z(-1, 3)?

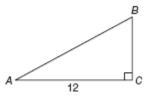
a. square

c. trapezoid

b. rhombus

d. rectangle

80. In the figure below, $\sin B = 0.8$.



What is the length of \overline{AB} ?

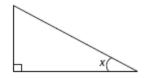
a. 9.6

c. 12.8

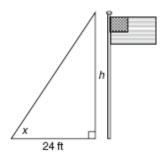
b. 12

d. 15

81. In the figure below, if $\sin x = \frac{8}{17}$, then what is $\cos x$?



82. In the figure below, the flagpole has height h. In the triangle, $\tan x = 1.5$. How many feet tall is the flagpole?



16 ft a.

b. 25.5 ft

c. 36 ft

d. 48 ft

83. In a right triangle, $\cos x = \frac{8}{10}$. What are $\sin x$ and $\tan x$?

a. $\sin x = \frac{6}{10}$, and $\tan x = \frac{6}{8}$

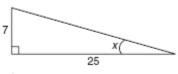
c. $\sin x = \frac{10}{6}$, and $\tan x = \frac{6}{8}$ d. $\sin x = \frac{10}{6}$, and $\tan x = \frac{10}{8}$

b. $\sin x = \frac{6}{10}$, and $\tan x = \frac{8}{6}$

84. In a right triangle, $\tan x = \frac{35}{12}$. What is $\sin x$?

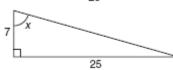
b.

85. In a right triangle, $\cos x = \frac{7}{25}$. Which correctly shows the triangle?

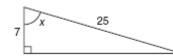




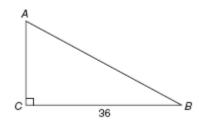
b.



d.



86. In the figure below, $\tan A = 1.5$.



What is the length of \overline{AC} ?

- a. 24
- b. 36

- c. 40
- d. 54
- 87. In the triangle below, $\tan x \approx 0.47$. Approximately how far is the cat from the girl?



- a. 11.9 ft
- b. 10.6 ft

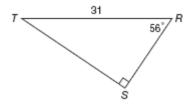
- c. 4.7 ft
- d. 2.4 ft
- _ 88. In a right triangle, $\cos x = \frac{24}{a}$, and $\sin x = \frac{7}{a}$. What is $\tan x$?
 - a. 25
 - b. 7

- c. 24
- d. 7
- 89. In the figure below, if $\tan x = \frac{48}{14}$, then what is $\sin x$?



- a. $\frac{14}{48}$
- b. $\frac{14}{50}$

- c. 50
- 48 d. 48
- a. 40
- 90. Triangle *RST* is shown below.



Which equation should be used to find the length of \overline{RS} ?

a.
$$\sin 56^\circ = \frac{RS}{31}$$

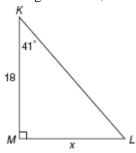
c.
$$\cos 56^\circ = \frac{RS}{31}$$

b.
$$\sin 56^\circ = \frac{31}{RS}$$

c.
$$\cos 56^\circ = \frac{RS}{31}$$

d. $\cos 56^\circ = \frac{31}{RS}$

91. In the figure below,
$$m \angle K = 41^{\circ}$$
, and $MK = 18$.



Which equation could be used to find x in $\triangle KLM$?

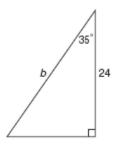
a.
$$x = 18 \sin 41^{\circ}$$

c.
$$x = 18 \tan 41^{\circ}$$

b.
$$x = 18 \cos 41^{\circ}$$

d.
$$x = \frac{18}{\sin 4.19}$$

92. In the triangle below, which equation should be used to find the length of the hypotenuse?



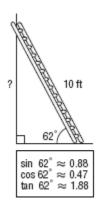
a.
$$b = 24 \sin 35^{\circ}$$

b.
$$b = 24 \cos 35^{\circ}$$

c.
$$b = \frac{24}{\sin 35^{\circ}}$$

d. $b = \frac{24}{\cos 35^{\circ}}$

The figure below shows a 10-foot ladder leaning against a wall. The ladder makes a 62° angle with the ground.



Which is closest to how far up the ladder reaches on the wall?

a. 4.7 ft

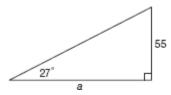
c. 8.8 ft

b. 6.2 ft

- d. 18.8 ft
- 94. In a right triangle, one angle has measure 26°. The side opposite that angle is 9 cm long. Which is closest to the length of the hypotenuse?

- a. 2.9 cm
- 10.0 cm

- c. 18.4 cm
- 20.5 cm
- 95. Which equation could be used to find *a* in the right triangle below?



- $\sin 27^\circ = \frac{55}{a}$
- $\cos 27^{\circ} = \frac{55}{3}$

- c. $\cos 27^\circ = \frac{\alpha}{55}$ d. $\tan 27^\circ = \frac{55}{\alpha}$
- 96. In a right triangle, one angle has measure 50° and hypotenuse 6 inches. Which equation could be used to find x, the side opposite the 50° angle?
 - $\sin 50^\circ = \frac{x}{6}$

b. $\sin 50^\circ = \frac{6}{x}$

- c. $\cos 50^\circ = \frac{x}{6}$ d. $\cos 50^\circ = \frac{6}{x}$
- 97. In the figure below, $m\angle Q = 17^{\circ}$, and NP = 23.

Which equation could be used to find the value of x in $\triangle NPQ$?

a.
$$x = \frac{23}{\sin 17^\circ}$$

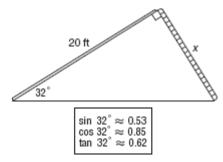
c.
$$x = \frac{\tan 17^{\circ}}{23}$$

b.
$$x = \frac{23}{\cos 17^{\circ}}$$

c.
$$x = \frac{\tan 17^{\circ}}{23}$$

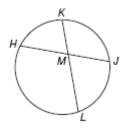
d. $x = \frac{\cos 17^{\circ}}{23}$

98. The figure below shows a 20-foot water slide. The slide makes a 32° angle with the ground.



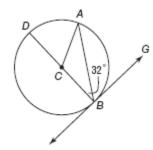
Which is closest to the length of the ladder?

99. In the circle below, \overline{HJ} and \overline{KL} are chords intersecting at M.



If HM = 6, JM = 6, and LM = 9, then what is the length of \overline{KM} ?

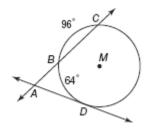
100. \overrightarrow{BG} is tangent at point B to a circle whose center is C. \overline{BD} is a diameter.



What is $m \angle ABG$?

- a. 40°
- b. 58°

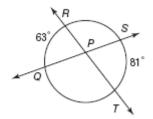
- c. 90°
- d. 116°
- 101. In the figure below, \overrightarrow{AD} is tangent to circle M at point D, \overrightarrow{AC} intersects circle M at points B and C, $\overrightarrow{mBD} =$ 64° , and $m\widehat{BC} = 96^{\circ}$.



What is $m \angle DAB$?

- a. 68°
- b. 100°

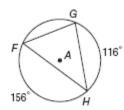
- c. 136°
- d. 200°
- _ 102. In the figure below, secants \overrightarrow{QS} and \overrightarrow{RT} intersect at point P, $m\overrightarrow{QR} = 63^{\circ}$, and $m\overrightarrow{TS} = 81^{\circ}$.



What is $m \angle SPT$?

- a. 18°
- b. 36°

- c. 72° d. 144°
- ___ 103. In the figure below, $\triangle FGH$ is inscribed in circle A, $\widehat{mFH} = 156^{\circ}$, and $\widehat{mGH} = 116^{\circ}$.

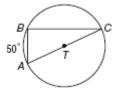


What is $m \angle FHG$?

- a. 88°
- b. 64°

- c. 44°
- d. 32°

____ 104. In the figure below, $\triangle ABC$ is inscribed in circle T and $\widehat{MAB} = 50^{\circ}$.



What is $m \angle BAC$?

- a. 25°
- b. 40°

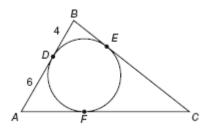
- c. 55°
- d. 65°

_____ 105. A square is circumscribed about a circle. What is the ratio of the perimeter of the square to the circumference of the circle?

- a. $\frac{8}{1}$
- b. 4

- c. $\frac{2}{2}$
- d. 4

_____ 106. Triangle ABC is circumscribed about the circle. In the figure, AD = 6, DB = 4, and the perimeter of $\triangle ABC$ is 40.

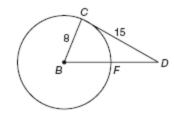


What is the length of \overline{FC} ?

- a. 10b. 15

- c. 20
- d. 30

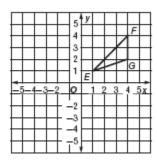
____ 107. In the figure below, \overline{CD} is tangent to circle B at point C.



What is the length of \overline{FD} ?

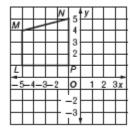
- a. 7
- b. 8

- c. 9
- d. 17
- _ 108. If triangle *EFG* is rotated 180 degrees about the origin, what would be the coordinates of *G*′?



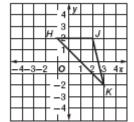
- a. (-4, -2)
- b. (-4, 2)

- c. (-2, 4) d. (-2, -4)
- 109. If trapezoid *LMNP* is reflected across the y-axis, what would be the coordinates of L'?



- a. (-5, -1)
- b. (5, 1)

- c. (1, 5)
- d. (-1, 5)
- _ 110. Triangle HJK below is translated so that the coordinates of the new vertices are H'(-2, 4), J'(1, 4), and K'(2, 0).



Which motion rule describes the translation?

a.
$$(x, y) \rightarrow (x + 1, y + 2)$$

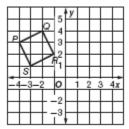
c.
$$(x, y) \to (x + 2, y - 1)$$

b.
$$(x, y) \rightarrow (x - 1, y + 2)$$

d.
$$(x, y) \to (x-2, y+1)$$

_____ 111. Square PQRS below is to be translated to square P'Q'R'S' by the following motion rule.

$$(x, y) \rightarrow (x + 2, y - 6)$$



What will be the coordinates of vertex P'?

a.
$$(-2, -3)$$

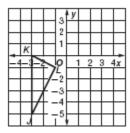
c.
$$(1, -1)$$

b.
$$(-3, -1)$$

112. The vertices of parallelogram ABCD are A(-3, 0), B(-1, 3), C(-1, -2), and D(-3, -5). If the figure is translated 4 units to the right and 2 units up, what are the coordinates of vertex B'?

a.
$$(-3, -1)$$

____ 113. If triangle JKL is rotated 180 degrees about the origin, what are the coordinates of J'?



a.
$$(5,3)$$

c.
$$(3, 5)$$

b.
$$(3,0)$$

d.
$$(3, -5)$$

____ 114. The vertices of $\triangle ABC$ are A(0, 6), B(2, 1), and C(-3, 4). If the figure is reflected across the *x*-axis to create $\triangle WXY$, what would be the coordinates of the vertices of $\triangle WXY$?

a.
$$W(-6, 0), X(2, 1), Y(-3, -4)$$

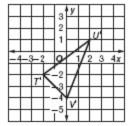
c.
$$W(0, -6), X(2, -1), Y(-3, -4)$$

b.
$$W(-3, -4), X(2, 1), Y(0, -6)$$

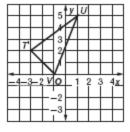
d.
$$W(0, 6), X(-2, 1), Y(3, -4)$$

____ 115. Triangle TUV has vertices T(-2, 1), U(2, 4), and V(0, -1). Which shows $\triangle TUV$ translated 3 units down and 1 unit to the left?

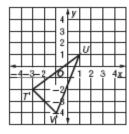
a.



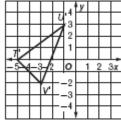
b.



c.



d.



Mr. McCaffrey's Big Tamale Geometry CST Review Test. Answer Section

MULTIPLE CHOICE

1.	ANS:	В	PTS:	1	STA:	(Key)3.0
2.	ANS:	D	PTS:	1	STA:	(Key)3.0
3.	ANS:	A	PTS:	1	STA:	(Key)3.0
4.	ANS:	D	PTS:	1	STA:	(Key)3.0
5.	ANS:	C	PTS:	1	STA:	(Key)3.0
6.	ANS:	C	PTS:	1	STA:	(Key)3.0
7.	ANS:	D	PTS:	1	STA:	(Key)3.0
8.	ANS:	A	PTS:	1	STA:	(Key)3.0
9.	ANS:	D	PTS:	1	STA:	(Key)3.0
10.	ANS:	A	PTS:	1	STA:	(Key)3.0
11.	ANS:	A	PTS:	1	STA:	(Key)3.0
12.	ANS:	D	PTS:	1	STA:	(Key)3.0
13.	ANS:	В	PTS:	1	STA:	(Key)3.0
14.	ANS:	C	PTS:	1	STA:	(Key)4.0
15.	ANS:	D	PTS:	1	STA:	(Key)4.0
16.	ANS:	D	PTS:	1	STA:	(Key)4.0
17.	ANS:	A	PTS:	1	STA:	(Key)4.0
18.	ANS:	C	PTS:	1	STA:	(Key)4.0
19.	ANS:	В	PTS:	1	STA:	(Key)4.0
20.	ANS:	C	PTS:	1	STA:	(Key)4.0
21.	ANS:	C	PTS:	1	STA:	(Key)4.0
22.	ANS:	D	PTS:	1	STA:	(Key)4.0
23.	ANS:	C	PTS:	1	STA:	(Key)4.0
24.	ANS:	A	PTS:	1	STA:	(Key)4.0
25.	ANS:	C	PTS:	1	STA:	(Key)8.0
26.	ANS:	C	PTS:	1	STA:	(Key)8.0
27.	ANS:	В	PTS:	1	STA:	(Key)8.0
28.	ANS:	A	PTS:	1	STA:	(Key)8.0
29.	ANS:	В	PTS:	1	STA:	(Key)8.0
30.	ANS:	В	PTS:	1	STA:	(Key)8.0
31.	ANS:	D	PTS:	1	STA:	(Key)8.0
32.	ANS:	C	PTS:	1	STA:	(Key)8.0
33.	ANS:	A	PTS:	1	STA:	(Key)8.0
34.	ANS:	D	PTS:	1	STA:	(Key)8.0
35.	ANS:	В	PTS:	1	STA:	(Key)8.0
36.	ANS:	C	PTS:	1	STA:	(Key)8.0
37.	ANS:	D	PTS:	1	STA:	(Key)8.0
38.	ANS:	C	PTS:	1	STA:	(Key)10.0
39.	ANS:	В	PTS:	1	STA:	(Key)10.0
40.	ANS:	A	PTS:	1	STA:	(Key)10.0
41.	ANS:	В	PTS:	1	STA:	(Key)10.0

42.	ANS:	D	PTS:	1	STA:	(Key)10.0
43.	ANS:	C	PTS:	1	STA:	(Key)10.0
44.	ANS:	A	PTS:	1	STA:	(Key)10.0
45.	ANS:	A	PTS:	1	STA:	(Key)10.0
46.	ANS:	C	PTS:	1	STA:	(Key)10.0
47.	ANS:	D	PTS:	1	STA:	
						(Key)10.0
48.	ANS:	В	PTS:	1	STA:	(Key)10.0
49.	ANS:	C	PTS:	1	STA:	(Key)12.0
50.	ANS:	C	PTS:	1	STA:	(Key)12.0
51.	ANS:	D	PTS:	1	STA:	(Key)12.0
52.	ANS:	C	PTS:	1	STA:	(Key)12.0
53.	ANS:	В	PTS:	1	STA:	(Key)12.0
54.	ANS:	В	PTS:	1	STA:	(Key)12.0
55.	ANS:	C	PTS:	1	STA:	(Key)12.0
56.	ANS:	D	PTS:	1	STA:	(Key)12.0
57.	ANS:	D	PTS:	1	STA:	(Key)12.0
58.	ANS:	C	PTS:	1	STA:	(Key)12.0
59.	ANS:	A	PTS:	1	STA:	(Key)12.0 $(Key)12.0$
60.	ANS:	C	PTS:	1		· · ·
					STA:	(Key)12.0
61.	ANS:	C	PTS:	1	STA:	(Key)12.0
62.	ANS:	В	PTS:	1	STA:	(Key)16.0
63.	ANS:	A	PTS:	1	STA:	(Key)16.0
64.	ANS:	C	PTS:	1	STA:	(Key)16.0
65.	ANS:	A	PTS:	1	STA:	(Key)16.0
66.	ANS:	D	PTS:	1	STA:	(Key)16.0
67.	ANS:	C	PTS:	1	STA:	(Key)16.0
68.	ANS:	A	PTS:	1	STA:	(Key)16.0
69.	ANS:	C	PTS:	1	STA:	(Key)17.0
70.	ANS:	A	PTS:	1	STA:	(Key)17.0
71.	ANS:	D	PTS:	1	STA:	(Key)17.0
72.	ANS:	D	PTS:	1	STA:	(Key)17.0
73.	ANS:	A	PTS:	1	STA:	(Key)17.0 $(Key)17.0$
				1		· · ·
74.		C	PTS:		STA:	(Key)17.0
75.	ANS:	В	PTS:	1	STA:	(Key)17.0
76.	ANS:	D	PTS:	1	STA:	(Key)17.0
77.	ANS:	A	PTS:	1	STA:	(Key)17.0
78.	ANS:	В	PTS:	1	STA:	(Key)17.0
79.	ANS:	C	PTS:	1	STA:	(Key)17.0
80.	ANS:	D	PTS:	1	STA:	(Key)18.0
81.	ANS:	В	PTS:	1	STA:	(Key)18.0
82.	ANS:	C	PTS:	1	STA:	(Key)18.0
83.	ANS:	A	PTS:	1	STA:	(Key)18.0
84.	ANS:	С	PTS:	1	STA:	(Key)18.0
85.	ANS:	D	PTS:	1	STA:	(Key)18.0
86.	ANS:	A	PTS:	1	STA:	(Key)18.0
87.	ANS:	В	PTS:	1	STA:	(Key)18.0 $(Key)18.0$
	ANS:		PTS:	1		· · ·
88.	AND:	D	L 19;	1	STA:	(Key)18.0

90	ANIC.	D	DTC.	1	CTA.	(Var.)19.0
89.	ANS:		PTS:	1	STA:	(Key)18.0
90.	ANS:	C	PTS:	1	STA:	(Key)19.0
91.	ANS:	C	PTS:	1	STA:	(Key)19.0
92.	ANS:	D	PTS:	1	STA:	(Key)19.0
93.	ANS:	C	PTS:	1	STA:	(Key)19.0
94.	ANS:	D	PTS:	1	STA:	(Key)19.0
95.	ANS:	D	PTS:	1	STA:	(Key)19.0
96.	ANS:	A	PTS:	1	STA:	(Key)19.0
97.	ANS:	A	PTS:	1	STA:	(Key)19.0
98.	ANS:	В	PTS:	1	STA:	(Key)19.0
99.	ANS:	В	PTS:	1	STA:	(Key)21.0
100.	ANS:	В	PTS:	1	STA:	(Key)21.0
101.	ANS:	A	PTS:	1	STA:	(Key)21.0
102.	ANS:	C	PTS:	1	STA:	(Key)21.0
103.	ANS:	C	PTS:	1	STA:	(Key)21.0
104.	ANS:	D	PTS:	1	STA:	(Key)21.0
105.	ANS:	D	PTS:	1	STA:	(Key)21.0
106.	ANS:	A	PTS:	1	STA:	(Key)21.0
107.	ANS:	C	PTS:	1	STA:	(Key)21.0
108.	ANS:	A	PTS:	1	STA:	(Key)22.0
109.	ANS:	В	PTS:	1	STA:	(Key)22.0
110.	ANS:	В	PTS:	1	STA:	(Key)22.0
111.	ANS:	A	PTS:	1	STA:	(Key)22.0
112.	ANS:	D	PTS:	1	STA:	(Key)22.0
113.	ANS:	C	PTS:	1	STA:	(Key)22.0
114.	ANS:	C	PTS:	1	STA:	(Key)22.0
115.		C	PTS:	1	STA:	(Key)22.0
		-				() /