CA5 Review

Name 1 Period Date

1. i. Diagonals are perpendicular
ii. No parallel sides
iii. One pair of congruent angles
iv. Interior angles equal 360 degrees

Which statement(s) above, or combination of statements above, proves a quadrilateral is a Kite?

A. I only
B. Ii and iii
C. I, ii and iv
D. I, ii and iii

2. Given that PQRS is an isosceles trapezoid with bases PQ and RS, Michelle made a correct conjecture about the trapezoid. Which statement below could have been Michelle's conjecture?

A. PQ is perpendicular to QS
B. PQ bisects QS
C. PS and QR are supplementary
D. PQ > PS

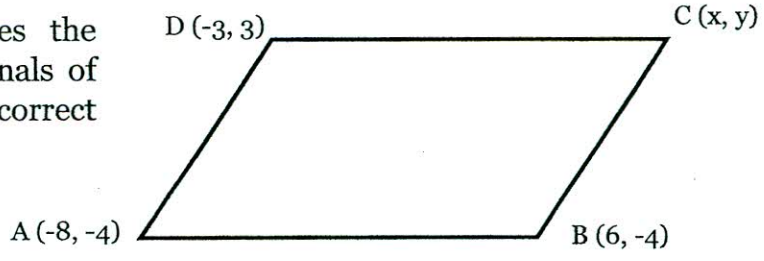
3. What is the sum, in degrees, of the measures of the interior angles of a polygon with 20 sides?

A. 360
B. 1440
C. 3,240
D. 3,420

4. A triangle has 2 side lengths of 10 and 24 respectively. Which choice below is not a possible length of the third side of the triangle?

A. ~~24~~ 14
B. ~~25~~ 15
C. ~~26~~ 16
D. ~~27~~ 17

5 Which answer choice below gives the point of intersection for the diagonals of the parallelogram and gives a correct justification?



A. ((-8+x)/2, (-4 + 3)/2)) - Because it is the midpoint of each diagonal
B. ((6+x)/2, (-4+y)/2)) - Because it is the midpoint of each diagonal
C. (0,0) - Because the distance from this point to each vertex is the same
D. (x/2, y/2) - Because the distance from this point to each vertex is the same

6. An exterior angle of a triangle is equal to the sum of the 2 non-adjacent interior angles.

A. True
B. False
C. Depends on the type of triangle
D. Not always

7. Three of the four vertices of Rectangle ABCD are given as A(1,6), B(-3,2), and C(4, -4). Which answer choice below could not be the slope of one of the sides or the slope of the diagonal containing the fourth vertex?

A. 1/5
B. 5
C.-3
D. 1

8. Given PQRS is a parallelogram with coordinates P(-3, 2), Q(1, 6), R(1, 2), What are the coordinates of S? ~~A(-3, 2)~~

A. (-3,-2)
B. (-2, 2)
C. (-1, 0)
D. (-3, 0)

9. The regular hexagon above shows positions on a combination lock. The combination for the lock requires three steps:

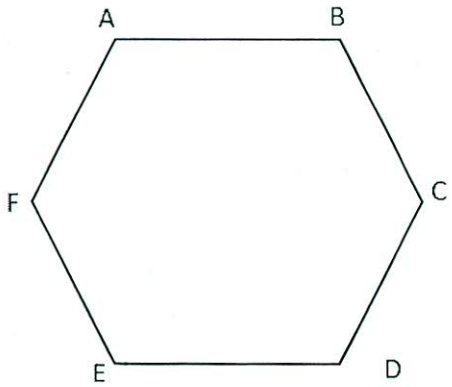
1 Start with the arrow pointing at the starting position.

2 Rotate the dial 120° clockwise.

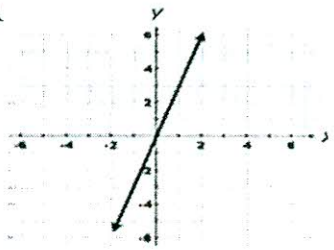
3 Rotate the dial 60° counterclockwise

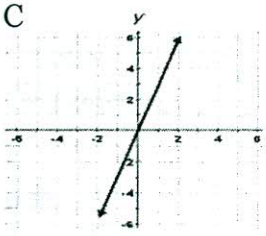
Which answer choice below describes the correct starting and ending positions of the arrow?

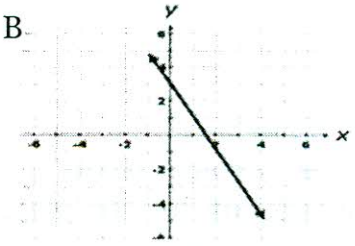
A. Start at B, end at E
B. Start at A, end at B
C. Start at C, end at E
D. Start at D, end at B

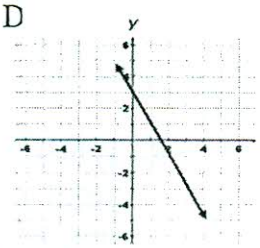


10. A kite has vertices at (-2, 0), (2, 0), (0, 2), and (0,-6). Which graph below represents a line parallel to the any side of the kite? Two Answers!

A 

C 

B 

D 

11. Which shape cannot tessellate alone to form a tessellation.

A. Rhombus
B. Triangle
C. Regular ~~Pentagon~~ Hexagon
D. Regular octagon

13 Complete the following statements about the attributes of a parallelogram.

a. A parallelogram will have 2 pairs of _____angles

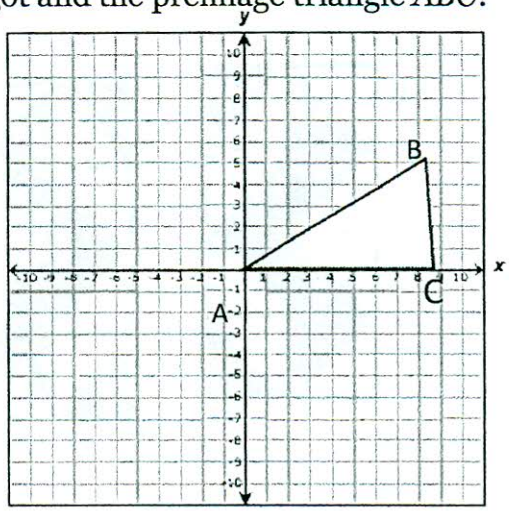
b. Consecutive angles will be _____

c. A parallelogram will have 2 pairs of _____and_____side s

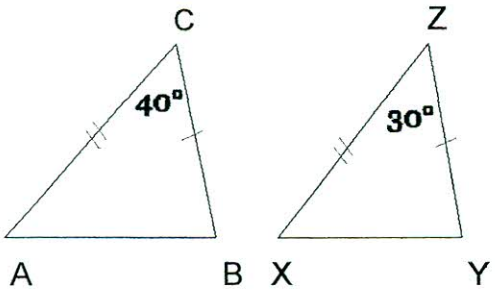
d. A parallelogram's angles will have sum of _____degrees.

e. If the parallelogram has 4 congruent sides, then it is called a_____

14. Rotate the triangle 90° clockwise about the origin. What conjecture can you make about the image you have got and the preimage triangle *ABC*?



15 Which of the segments AB and XY is longer?



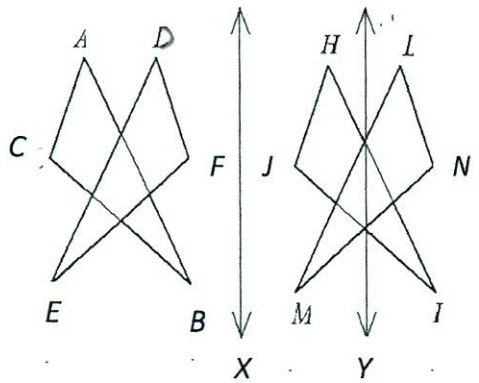
16. Which of the following best support(s) the definition for translation:

1) No shape changes
2) No size changes
3) Shift of position
4) $(x, y) \longrightarrow (x + x; y + y)$; where x & y can be either be negative or positive.
5) Isometric transformation
6) All the above.

17 Name the image of HIJ (drawn not to scale) after reflection in line:

(X)_____ (Y)_____

(Y) then (X)_____



18 Use your protractor to measure (to the nearest degree), and decide whether the polygon below is irregular or regular? Confirm your answer using the sum of interior angle formula