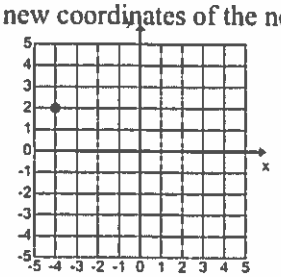
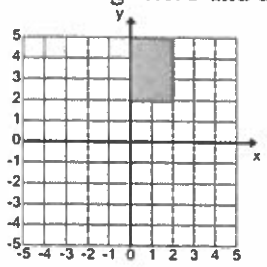
Study Guide 8th Grade Math Unit 1

1. When the point is reflected over the *x*-axis, what will the new coordinates of the new point be?



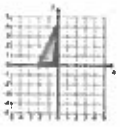
A. (-4,2)
B. (4,2)
C. (-4,-2)
D. (4,-2)

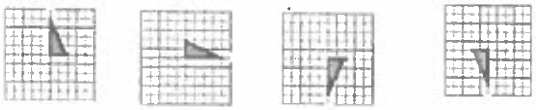
2. Translate the image left 3 and down 7.



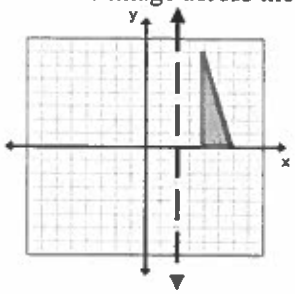
3. What is **true** about the resulting image of a scale factor 3 dilation?

4. Rotate the triangle 180° clockwise.

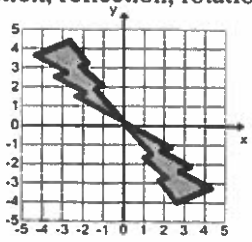




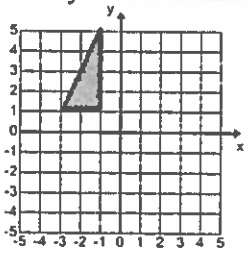
5. Reflect the image across the dotted line.



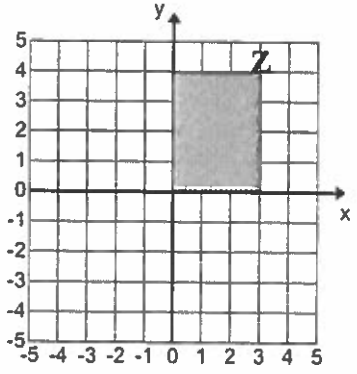
6. Dilation, reflection, rotation, or translation?



7. Reflect image over y-axis & translate 2 down.



Use the graph to answer questions 8 & 9.



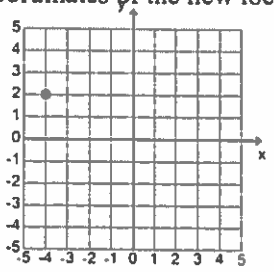
8. Find the coordinates of point Z' after a 90° clockwise rotation.

A. (3,4) B. (-3,4) C. (4,-3) D. (-4,3)

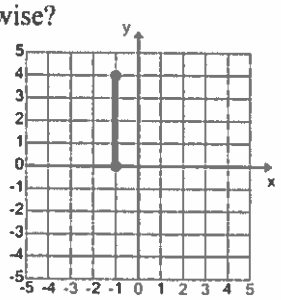
9. Return to the original figure and find the coordinates of point Z after being reflected over the y-axis.

A. (3,4) B. (-3,4) C. (4,-3) D. (-4,3)

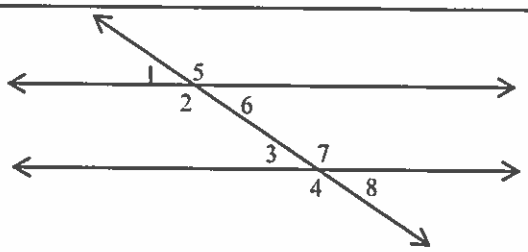
10. Translate the point 3 down and 5 right. Name the coordinates of the new location.



11. What will the length of the line be after it's rotated 90° clockwise?

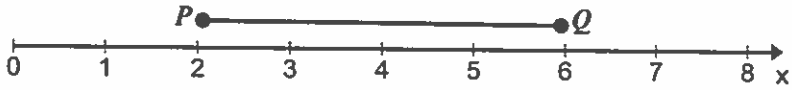


Use the diagram to answer questions 12 and 13.



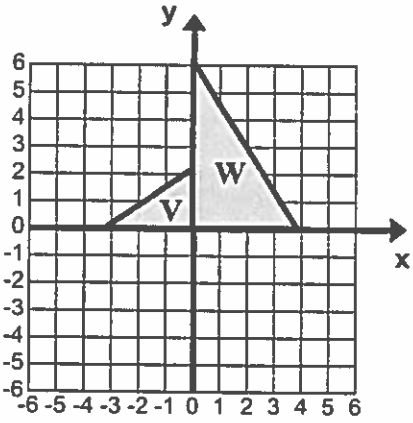
12. Name a pair of alternate exterior angles.

13. Name a pair of corresponding angles.

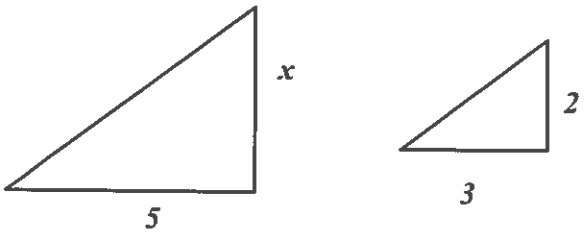


14. What will the length of line PQ be after a scale factor 2 dilation?

15. What will the length of line PQ be after a scale factor ½ dilation?

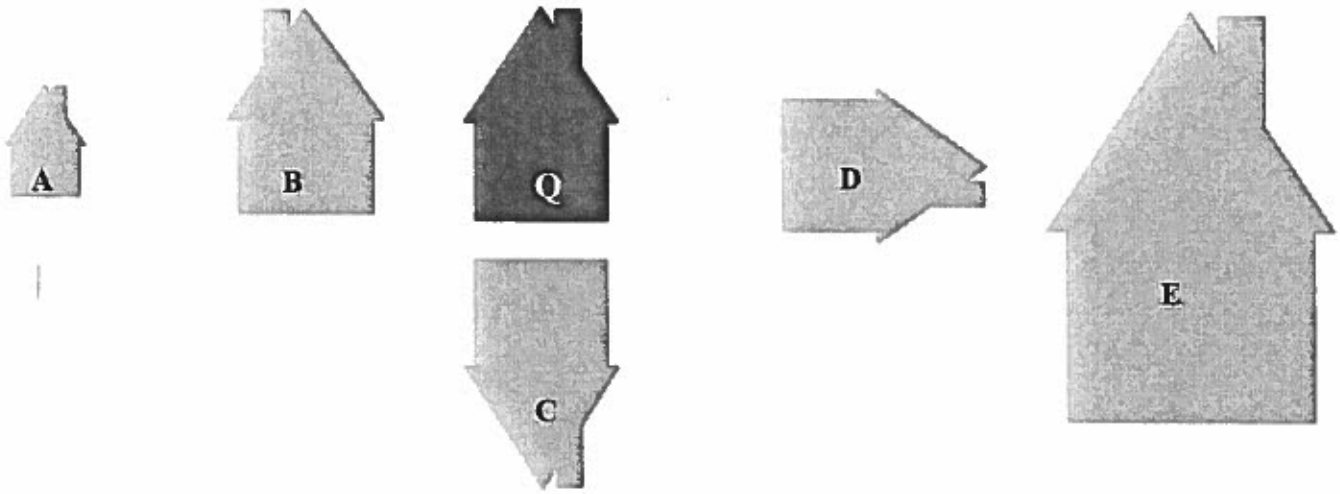


16. Describe the transformations that transformed triangle W to triangle V .



17. These are 2 similar triangles. Find x.

A. $x = 2$ B. $x = 2\frac{1}{2}$ C. $3\frac{1}{3}$ D. 3



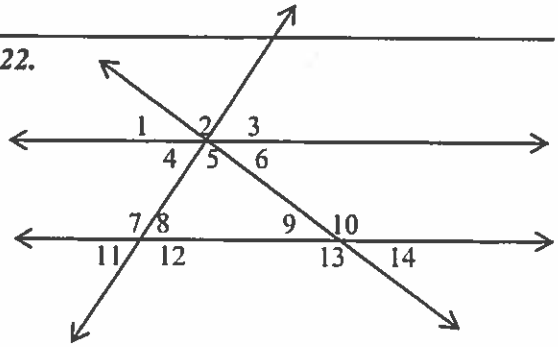
18. Figure Q is reflected across a horizontal line. Which figure is formed?
A. Figure A B. Figure B C. Figure C D. Figure D E. Figure E

19. Figure Q is dilated by a scale factor of 2 and translated to the right. Which figure is formed?
A. Figure A B. Figure B C. Figure C D. Figure D E. Figure E

20. Figure Q is rotated 90°. Which figure is formed?
A. Figure A B. Figure B C. Figure C D. Figure D E. Figure E

Use the information and diagram below to answer question 21 & 22.

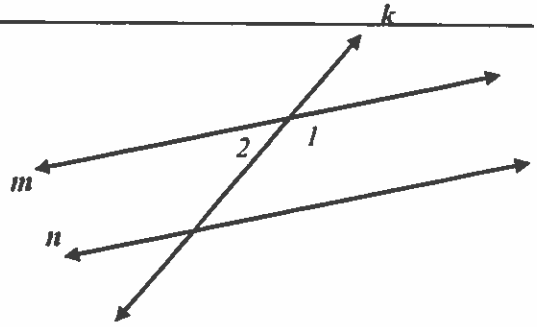
Measure of angle 4 is 58° and measure of angle 9 is 50°.



21. What is the measure of angle 5?

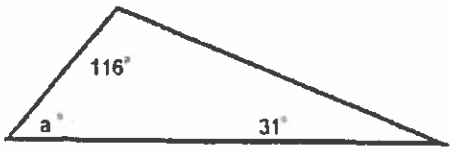
22. What is the measure of angle 8?

Use the diagram on the right to answer question 23.



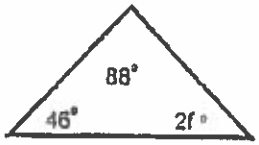
23. If the **measure of angle 1 = 12*x* + 1** and the **measure of angle 2 = 4*x* +11**, lines *m* and *n* are parallel when *x* equals:

4)



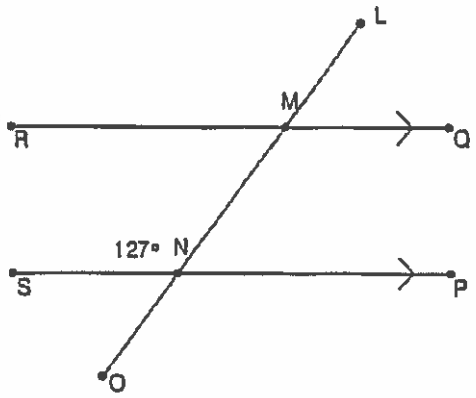
a = ____

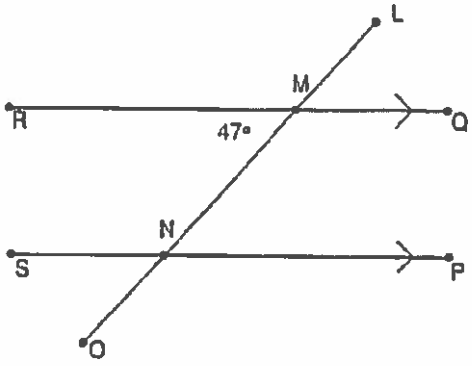
8)



f = ____

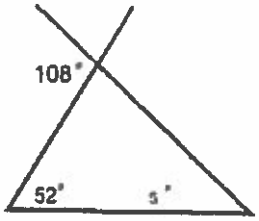
Instructions: Find all angle measurements using the angle given.





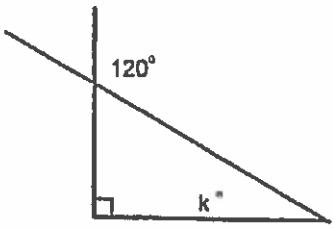
Solve for the given variable.

1)



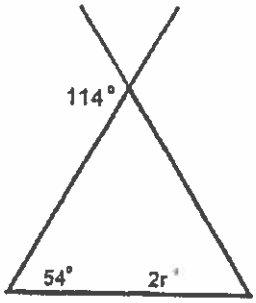
s = ____

2)



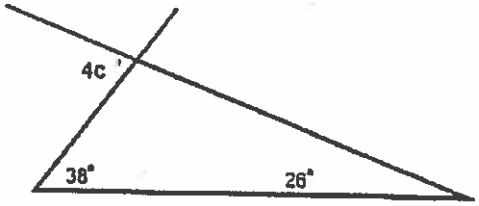
k = ____

3)



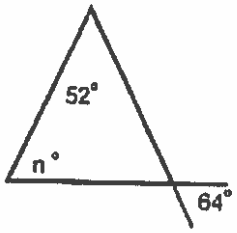
r = ____

5)



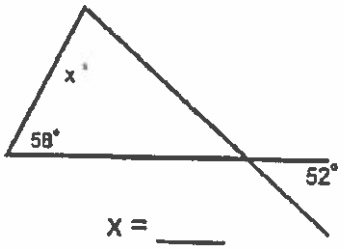
c = ____

6)



n = ____

7)



x = ____