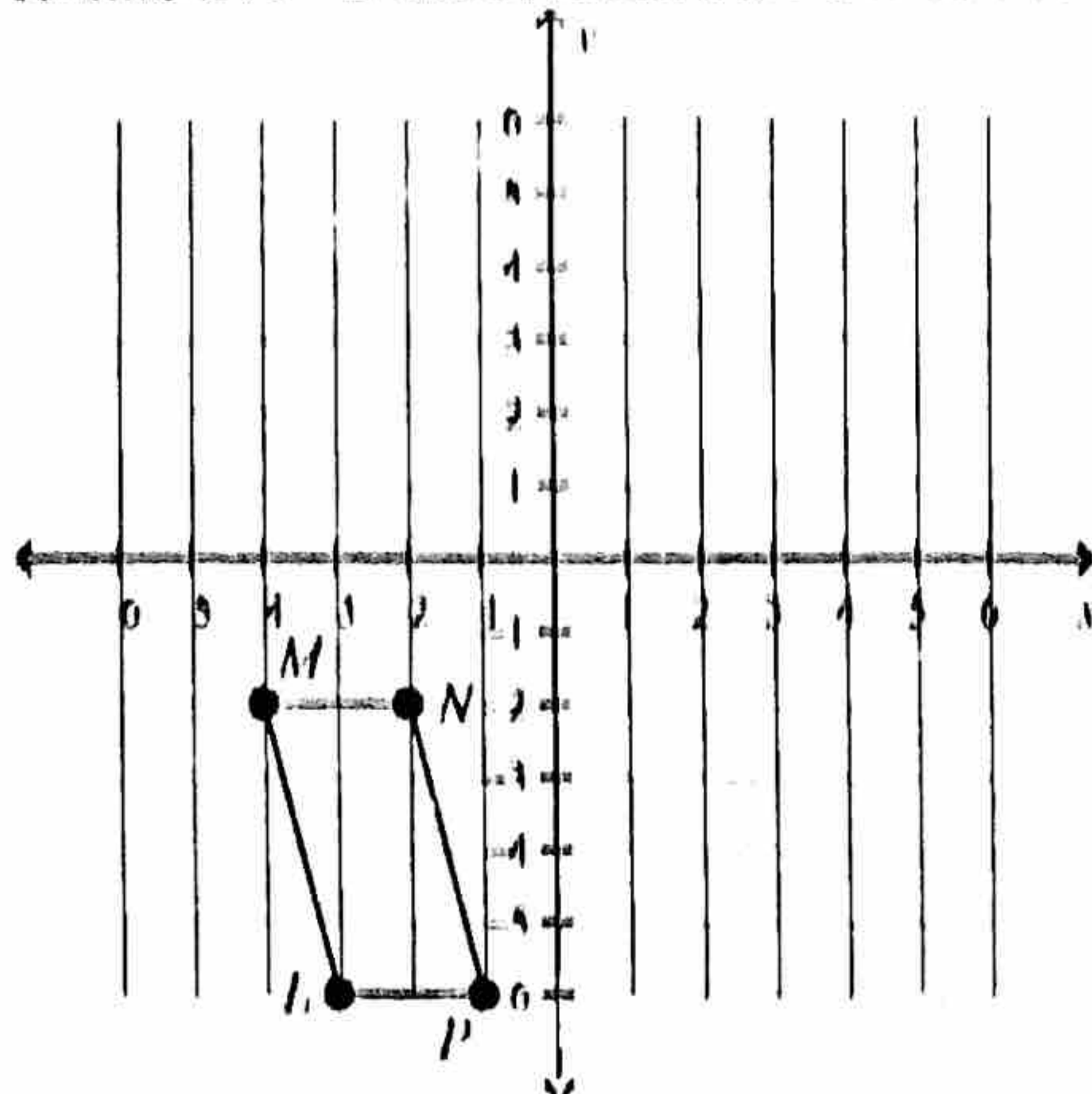
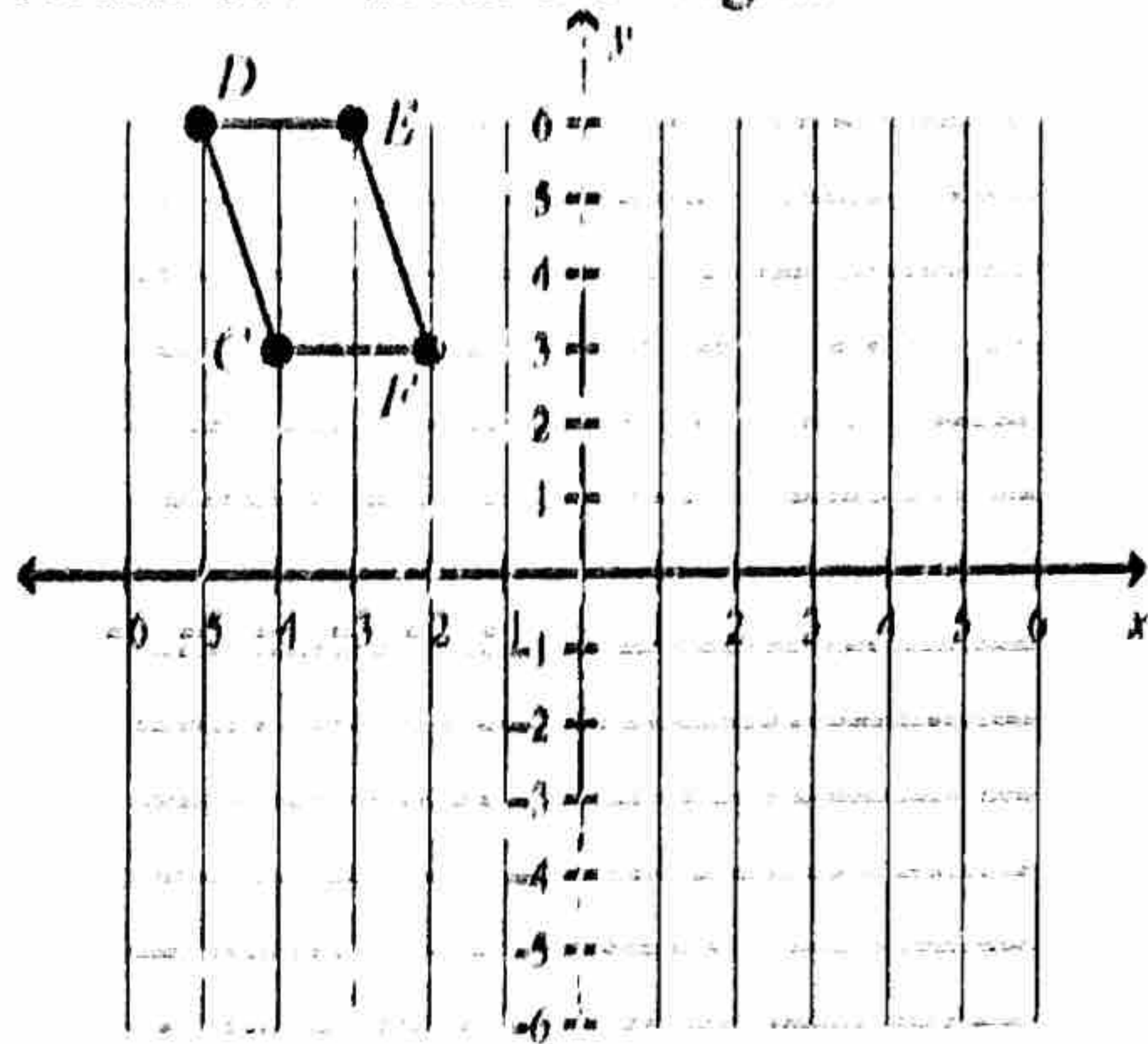


4. Rotate 270° counterclockwise about the origin.



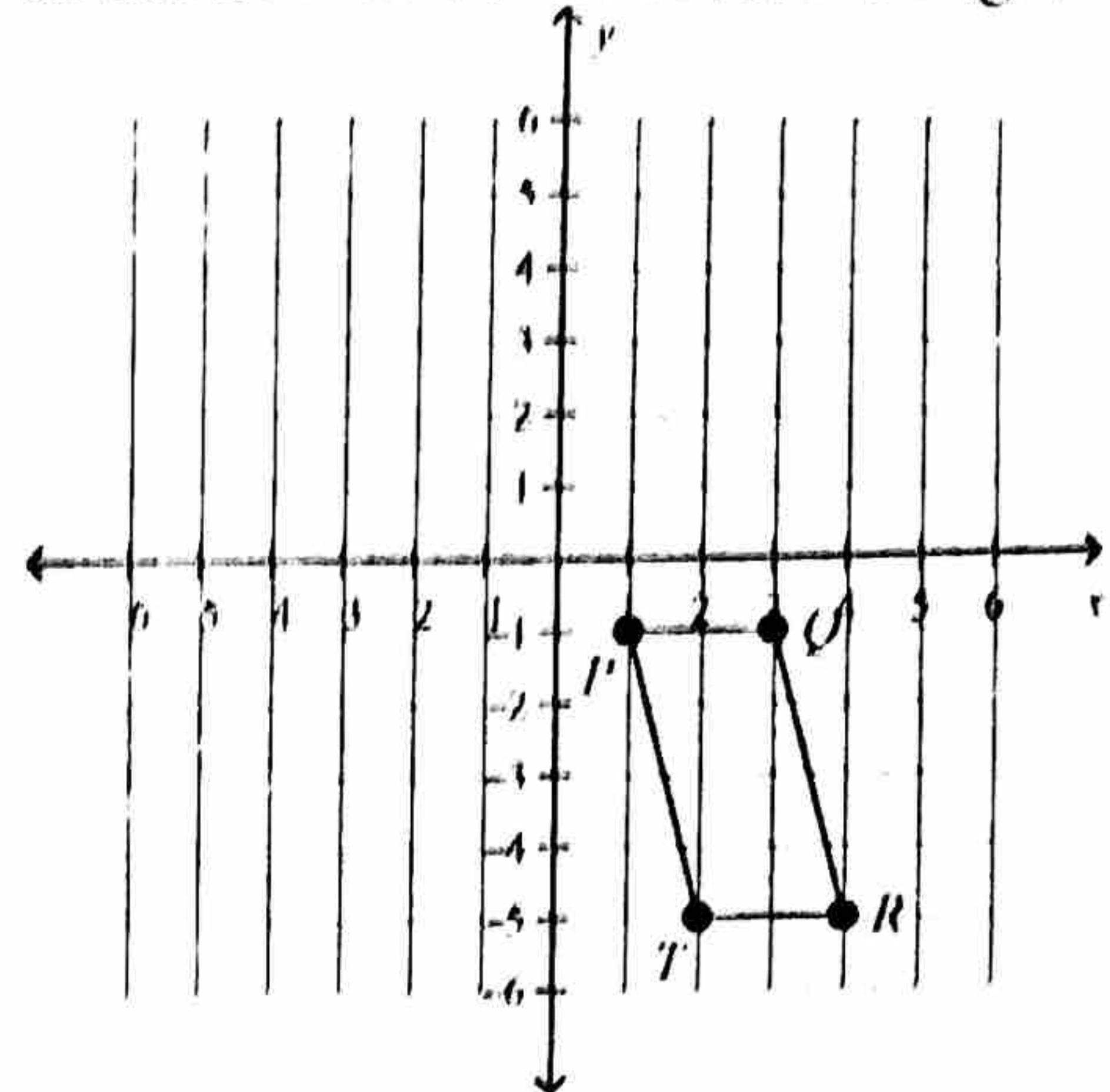
- a. $L'(6, -3), M'(2, -4), N'(2, -2), P'(6, -1)$
- b. $L'(-6, 3), M'(-2, 4), N'(-2, 2), P'(-6, 1)$
- c. $L'(3, 6), M'(4, 2), N'(2, 2), P'(1, 6)$
- d. $L'(6, 3), M'(2, 4), N'(2, 2), P'(6, 1)$

5. Rotate 180° about the origin.



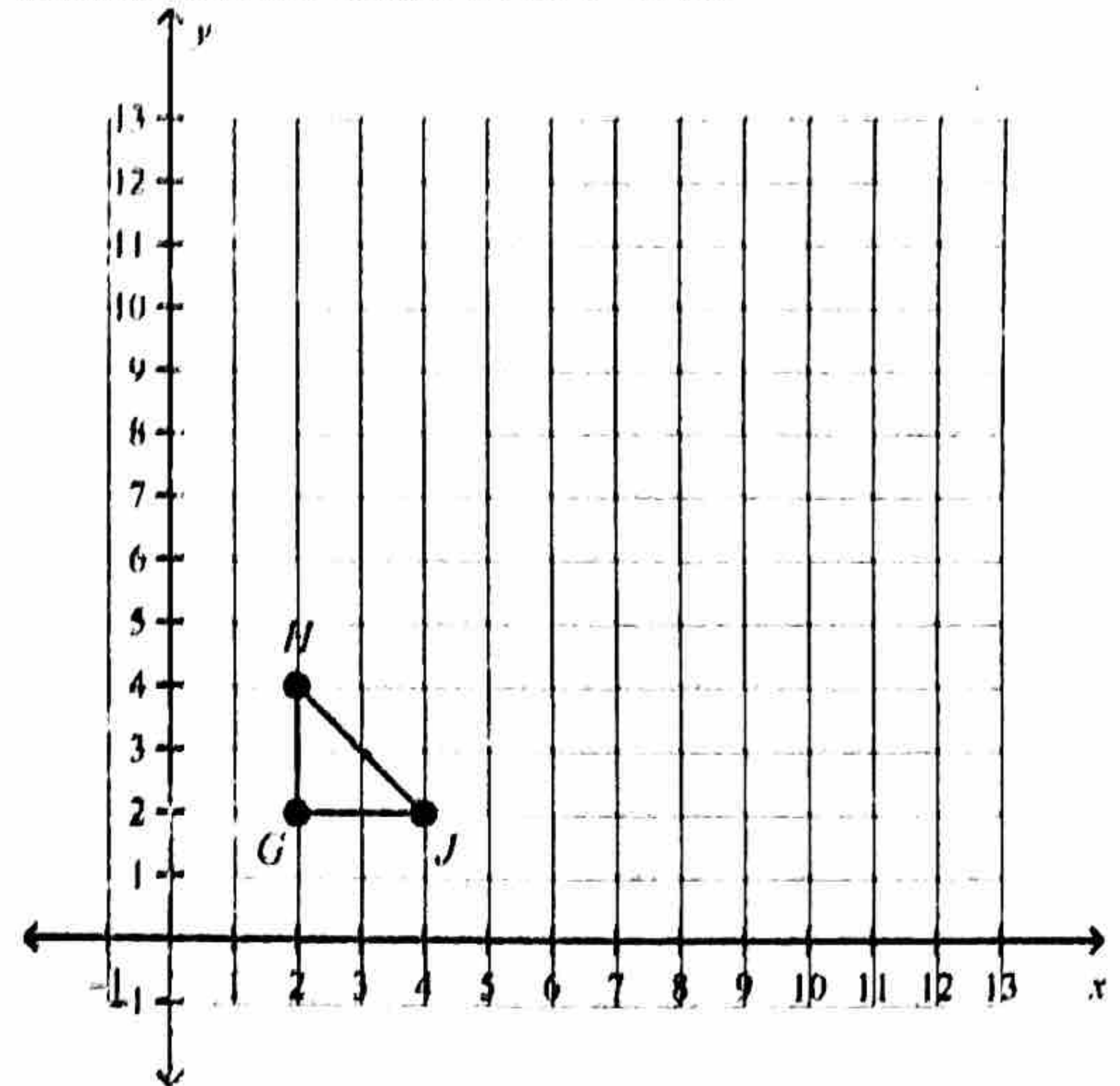
- a. $C'(4, -3), D'(5, -6), E'(3, -6), F'(2, -3)$
- b. $C'(-3, -4), D'(-6, -5), E'(-6, -3), F'(-3, -2)$
- c. $C'(-3, 4), D'(-6, 5), E'(-6, 3), F'(-3, 2)$
- d. $C'(3, 4), D'(6, 5), E'(6, 3), F'(3, 2)$

6. Rotate 270° clockwise about the origin.



- a. $P'(1, 1), Q'(3, 1), R'(4, 5), T'(2, 5)$
- b. $P'(1, 1), Q'(1, 3), R'(5, 4), T'(5, 2)$
- c. $P'(1, -1), Q'(1, -3), R'(5, -4), T'(5, -2)$
- d. $P'(-1, -1), Q'(-1, -3), R'(-5, -4), T'(-5, -2)$

7. Dilate with a scale factor of 3.

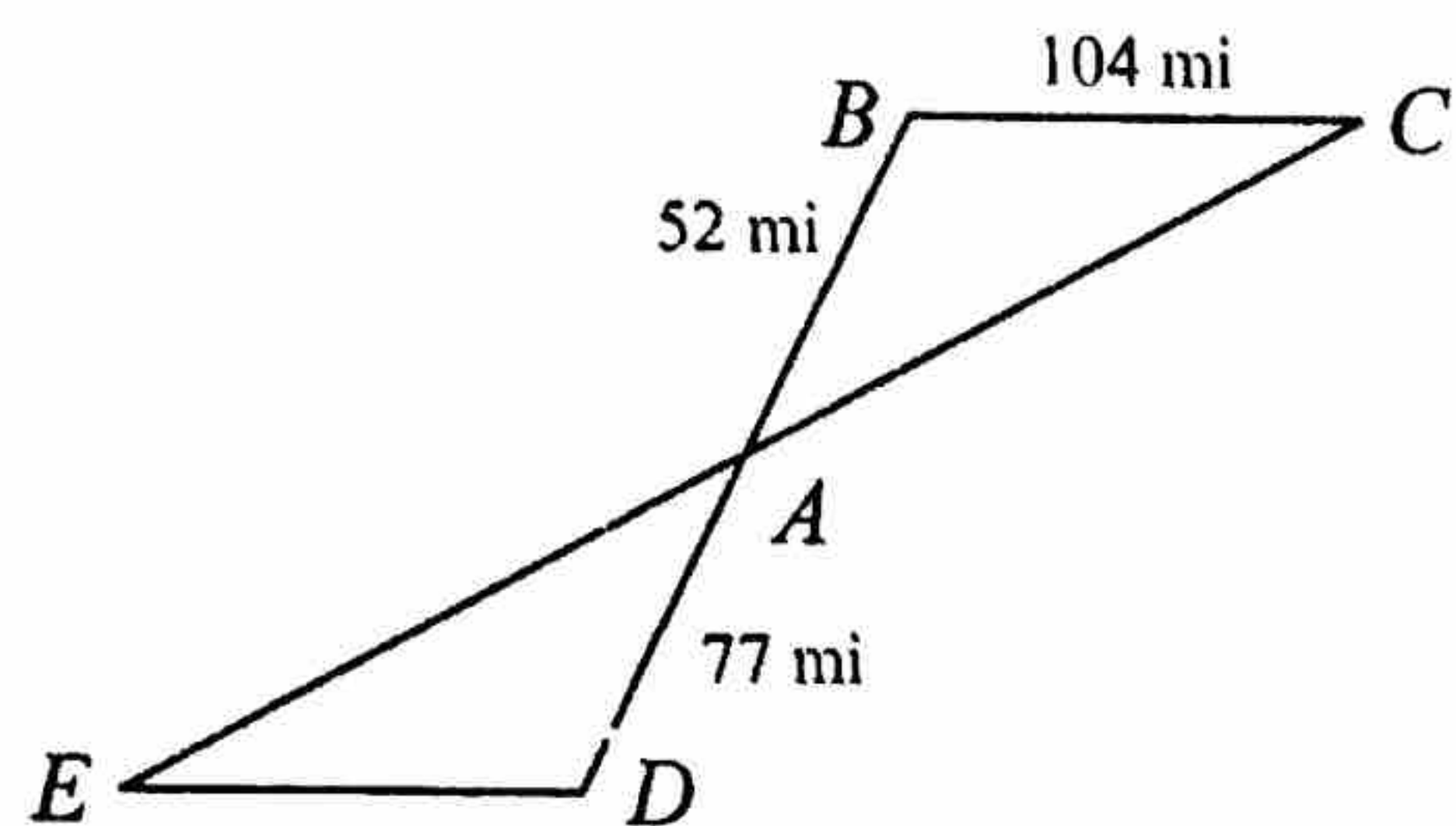


- a. $G'(6, 2), H'(6, 4), J'(12, 2)$
- b. $G'(\frac{2}{3}, \frac{2}{3}), H'(\frac{2}{3}, \frac{4}{3}), J'(\frac{4}{3}, \frac{2}{3})$
- c. $G'(6, 6), H'(6, 12), J'(12, 6)$
- d. $G'(2, 2), H'(2, 4), J'(4, 2)$

Name: _____

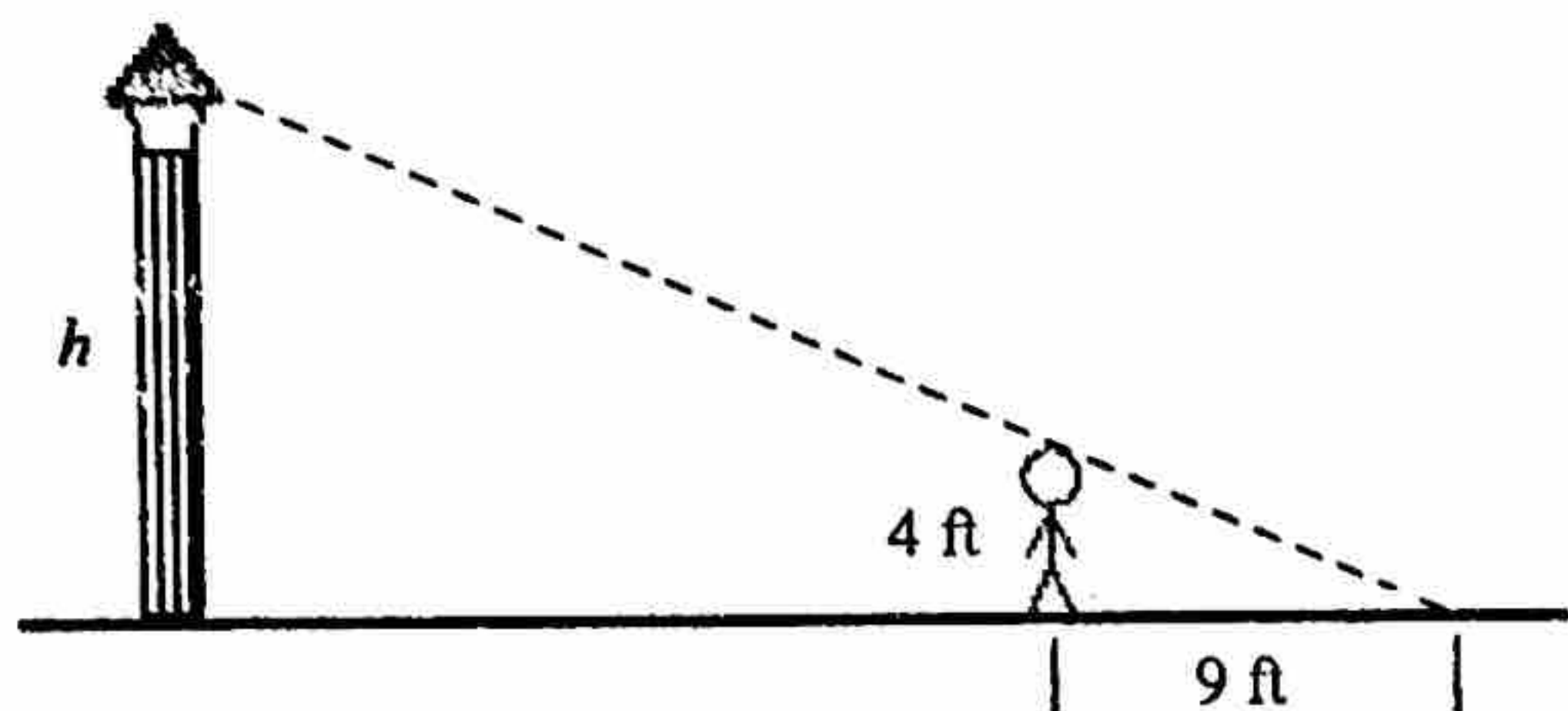
ID: A

8. In the figure, $\triangle ABC \sim \triangle ADE$. Find the distance DE .



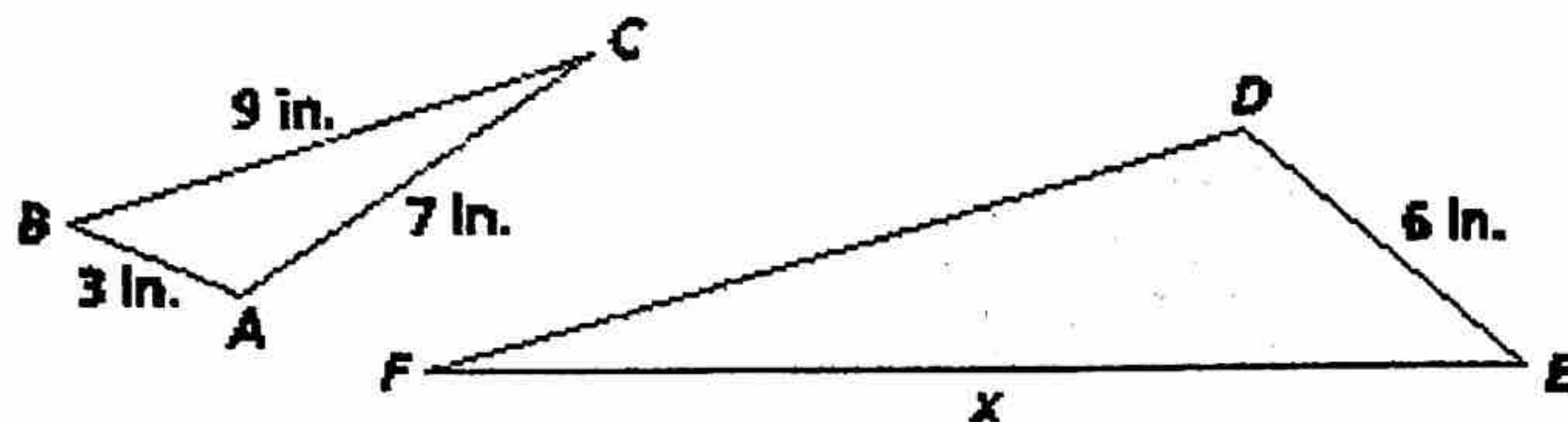
- a. 163.2 mi
- b. 157.4 mi
- c. 154 mi
- d. 70.2 mi

9. A person standing 45 feet from a street light casts a shadow as shown. What is the height h of the street light? Assume the triangles are similar.



- a. 22 ft
- b. 54 ft
- c. 25 ft
- d. 24 ft

10. The figures are similar.



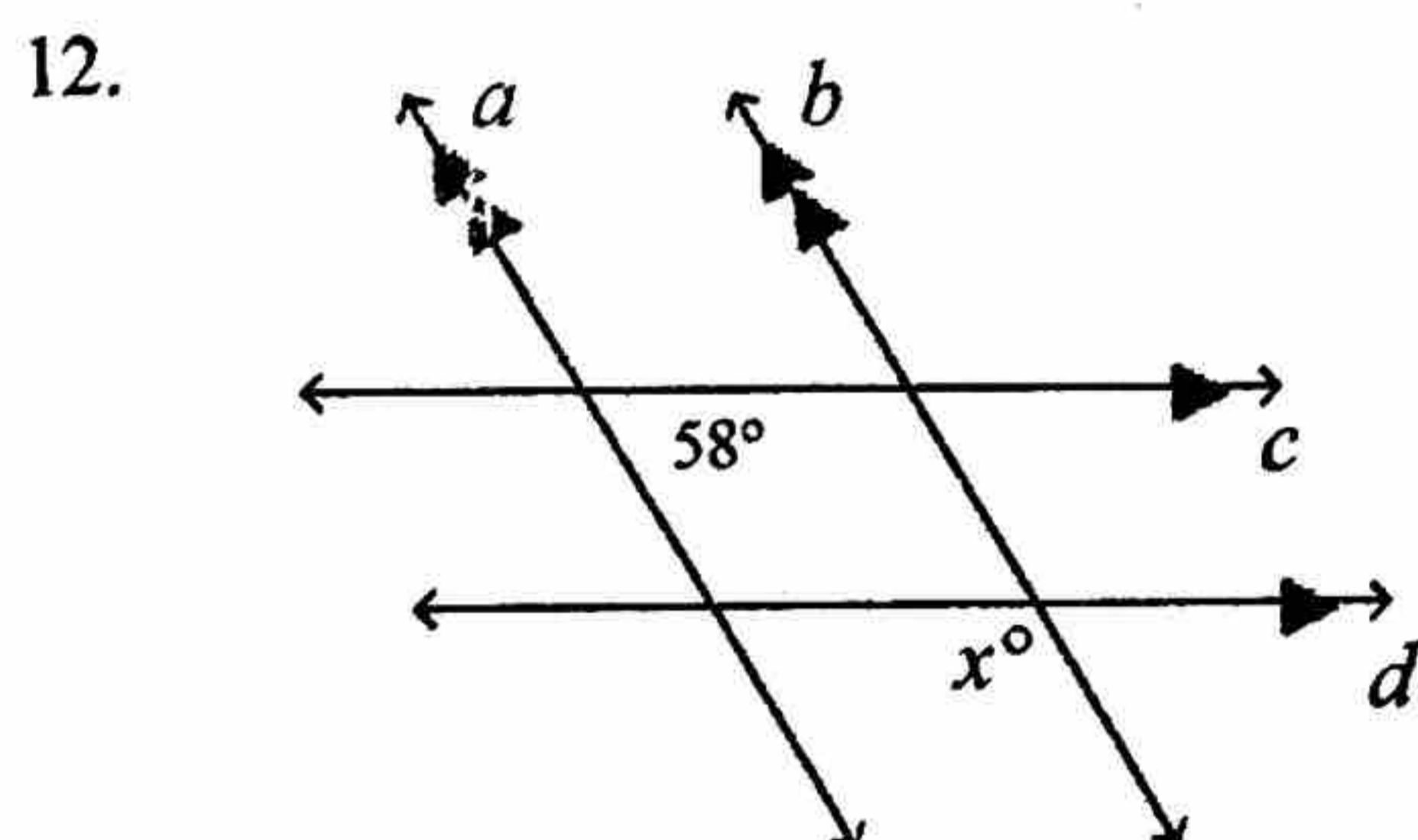
What is the value of x ?

- a. 2 inches
- b. 7.7 inches
- c. 14 inches
- d. 18 inches

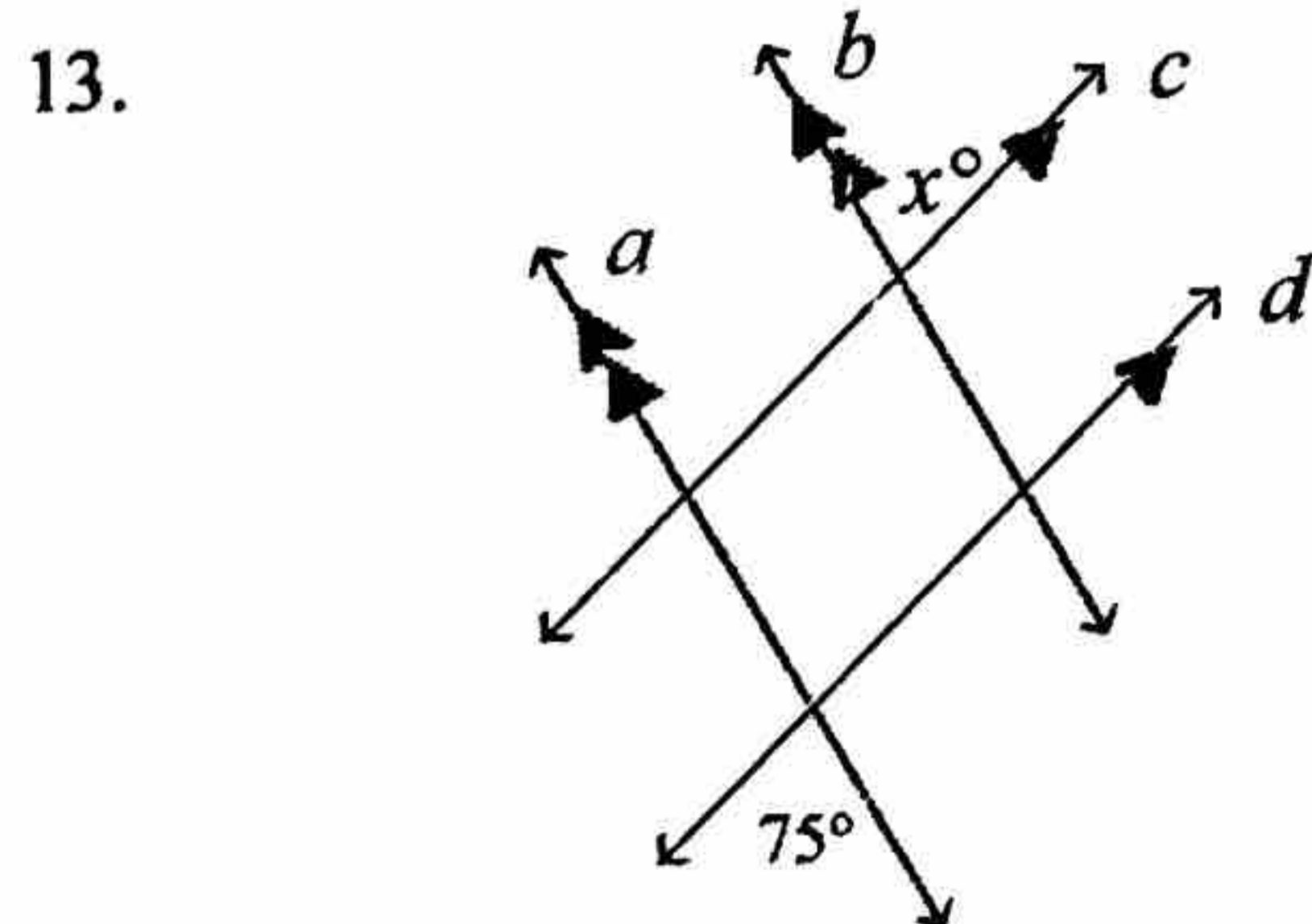
Name: _____

11. The vertices of a triangle are $A(-4,5)$, $B(-4,1)$, $C(-1,1)$. Rotate the triangle 180° about the origin. What are the coordinates of A' ?
- $(4,-5)$
 - $(5,4)$
 - $(-5,-4)$
 - $(-5,5)$

Find the value of x .

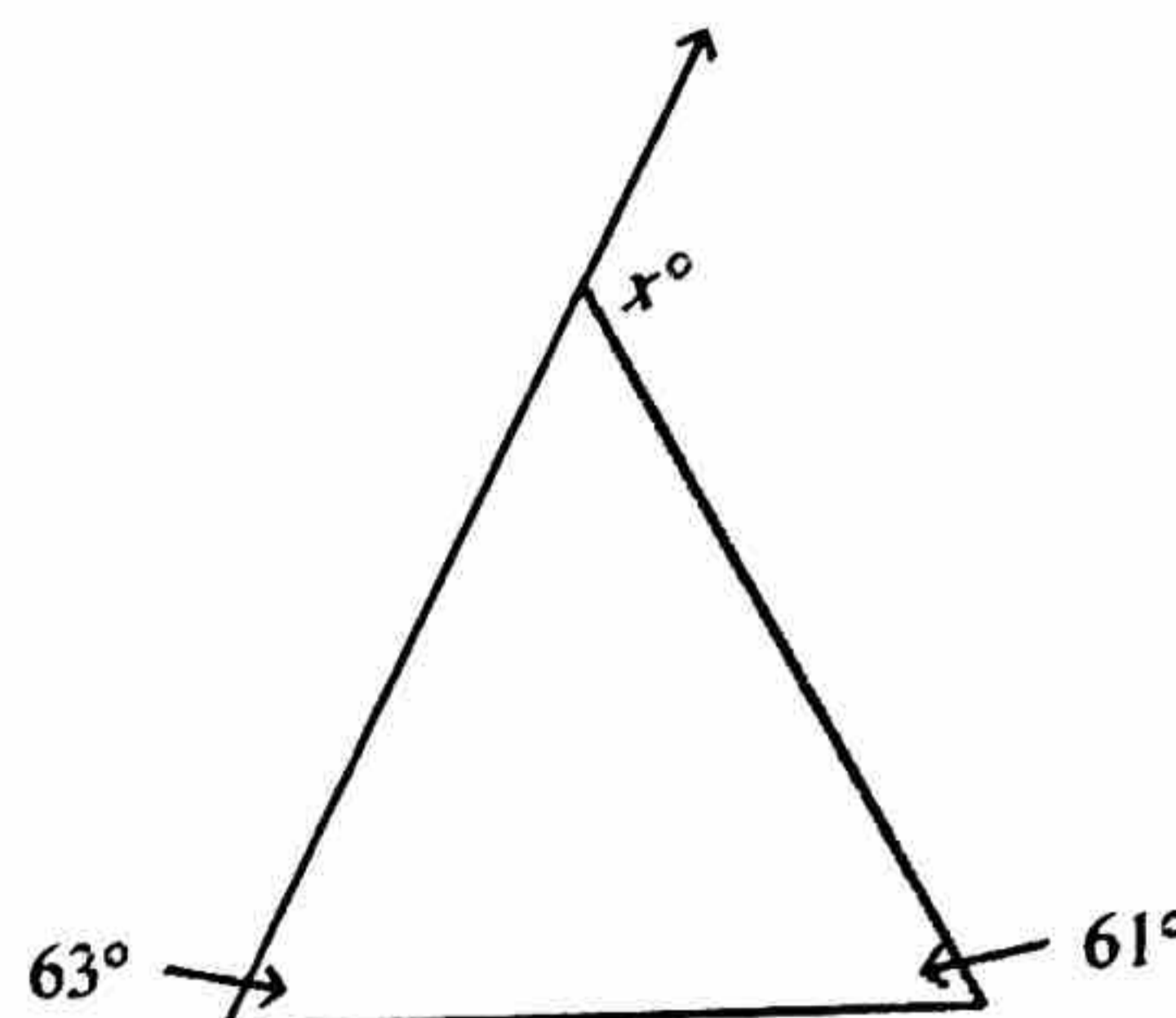


- 125
- 32
- 58
- 122



- 84
- 15
- 75
- 105

14. Find the measure of the exterior angle.



- 61°
- 124°
- 56°
- 63°

15. Write the decimal as a fraction or mixed number.

$7.\bar{3}$

- $7\frac{2}{3}$
- $7\frac{1}{3}$
- $8\frac{1}{9}$
- $7\frac{3}{10}$

16. Evaluate the expression.

$(\sqrt{9})^2 + 60$

- 141
- 69
- 51
- 63

Name: _____

ID: A

17. The kinetic energy K (in joules) of a falling book is represented by $K = \frac{v^2}{4}$, where v is the speed of the book (in meters per second). How fast is the book traveling when the kinetic energy is 9 joules?
- a. about 5.1 m/sec
 - b. 1.5 m/sec
 - c. 36 m/sec
 - d. 6 m/sec

18. Evaluate the expression for the given value of the variable.

$$\sqrt[3]{3w} - w, w = 72$$

- a. -66
- b. 216
- c. -57
- d. 144

19. Evaluate the expression.

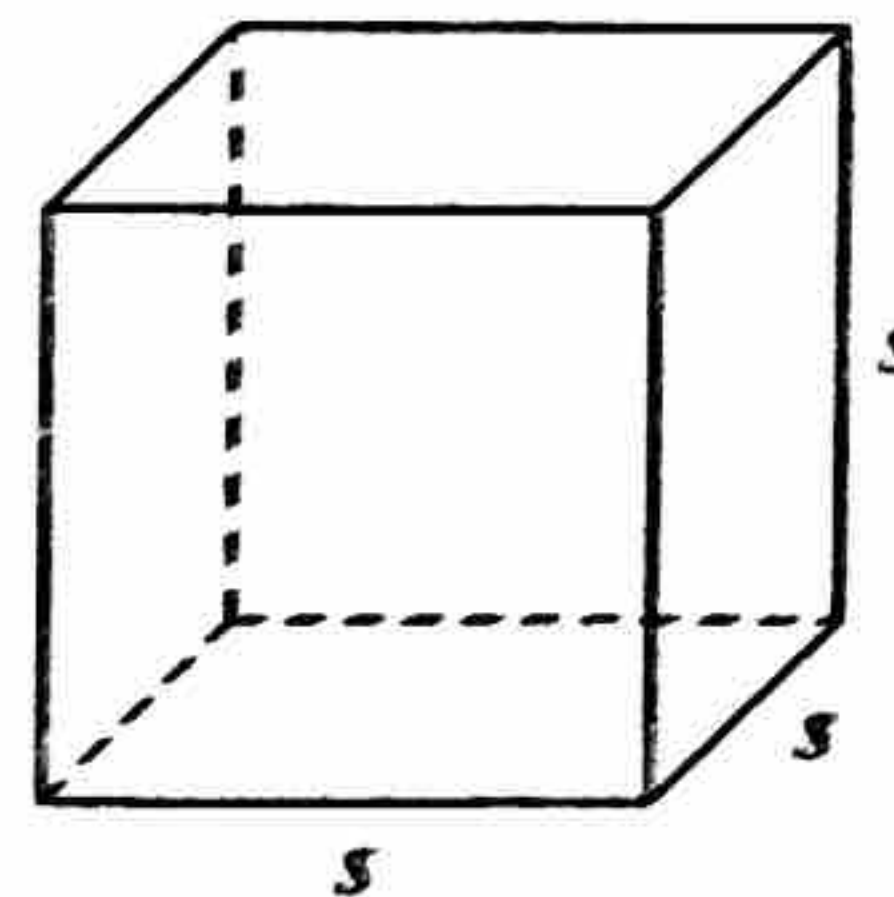
$$\frac{1}{5} - 3\sqrt[3]{\frac{1}{343}}$$

- a. $\frac{1}{80}$
- b. $\frac{22}{35}$
- c. $\frac{8}{35}$
- d. $\frac{31}{80}$

Find the surface area of the cube.

20.

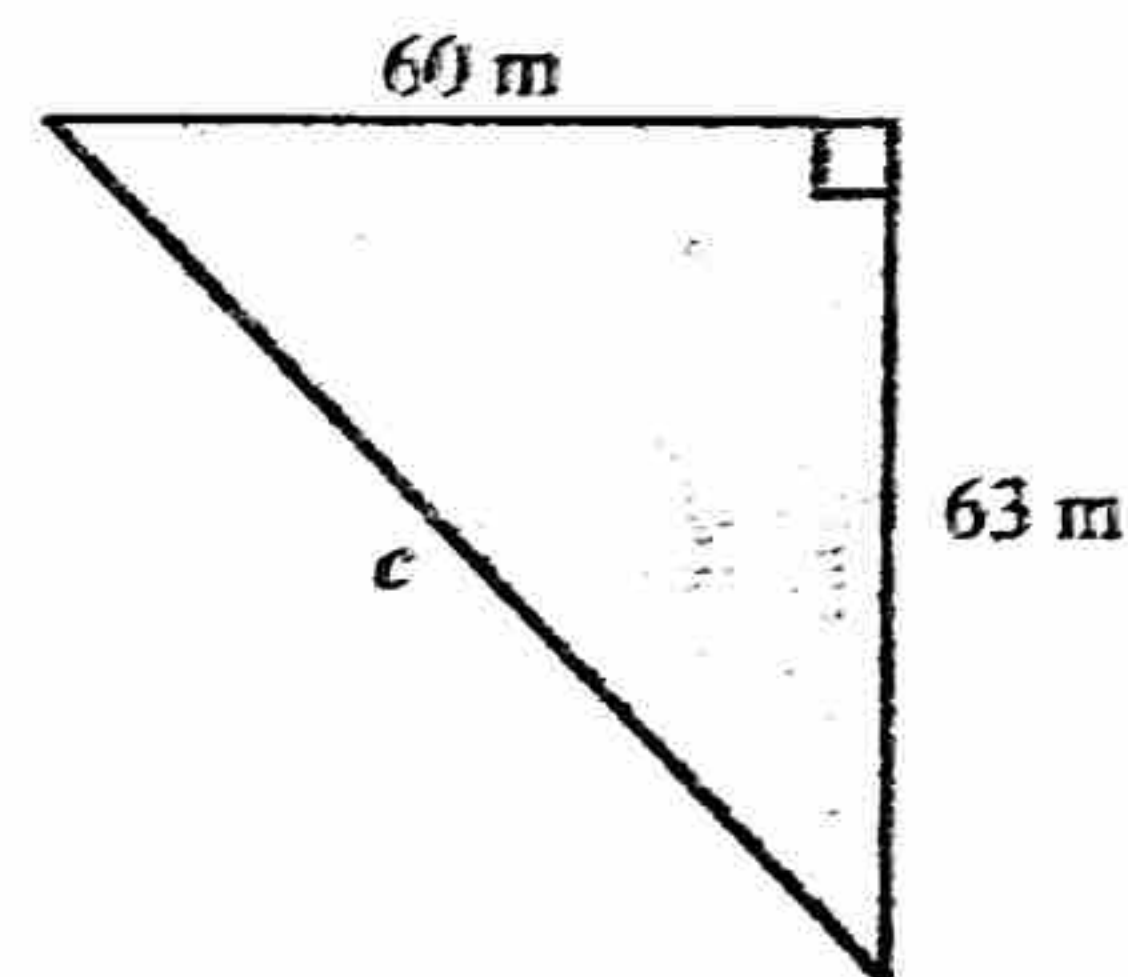
Volume = 8 cubic inches



- a. 24 inches
- b. 2 inches
- c. 12 inches
- d. 4 inches

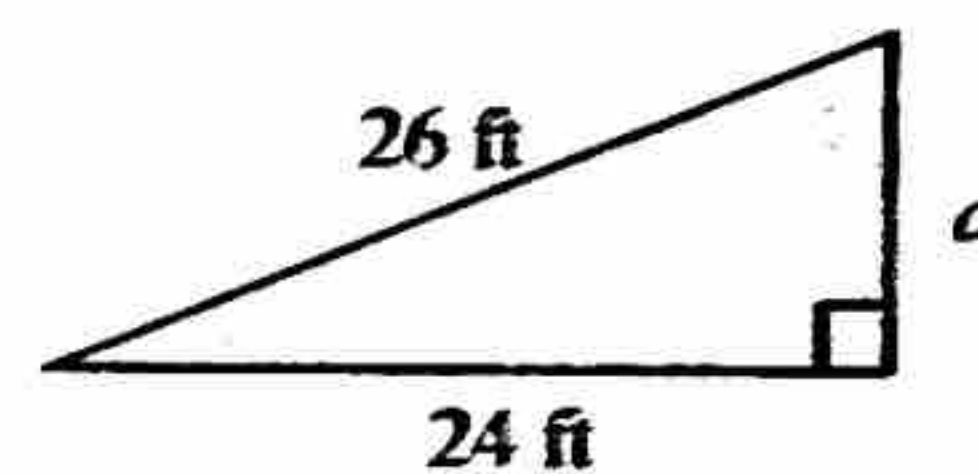
Find the missing length of the triangle.

21.



- a. 19.2 m
- b. 86 m
- c. 88 m
- d. 87 m

22.

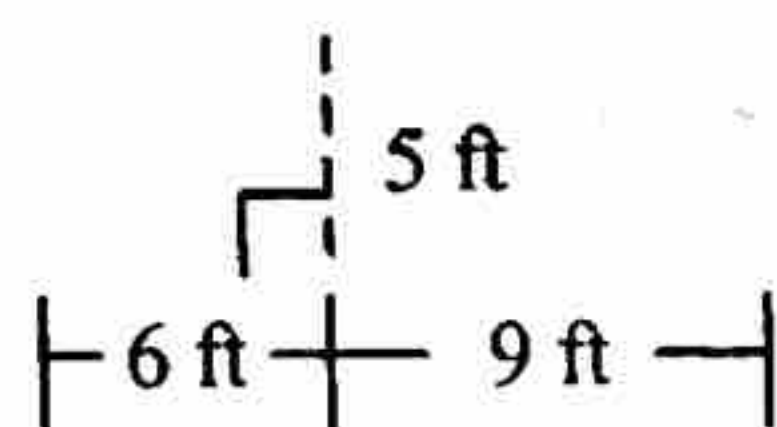


- a. 10 ft
- b. 12 ft
- c. 35.4 ft
- d. 11 ft

Name: _____

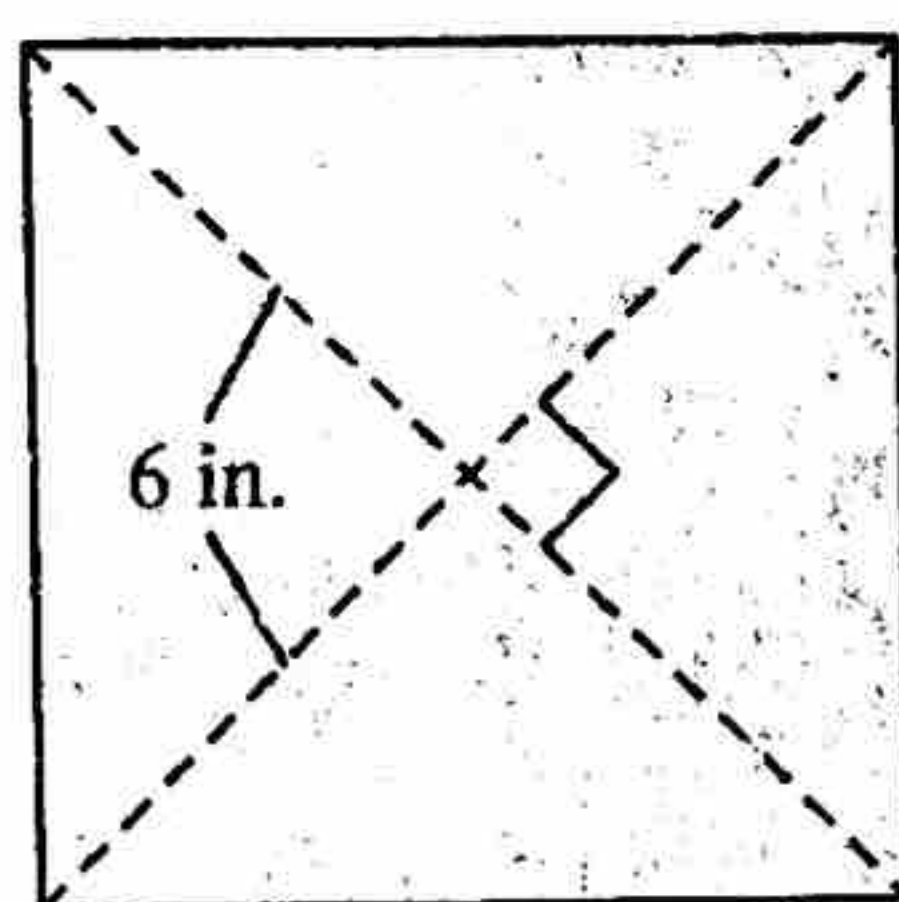
Find the perimeter. Round your answer to the nearest tenth.

23. Parallelogram



- a. 36.6 m c. 40 m
b. 75 m d. 45.6 m

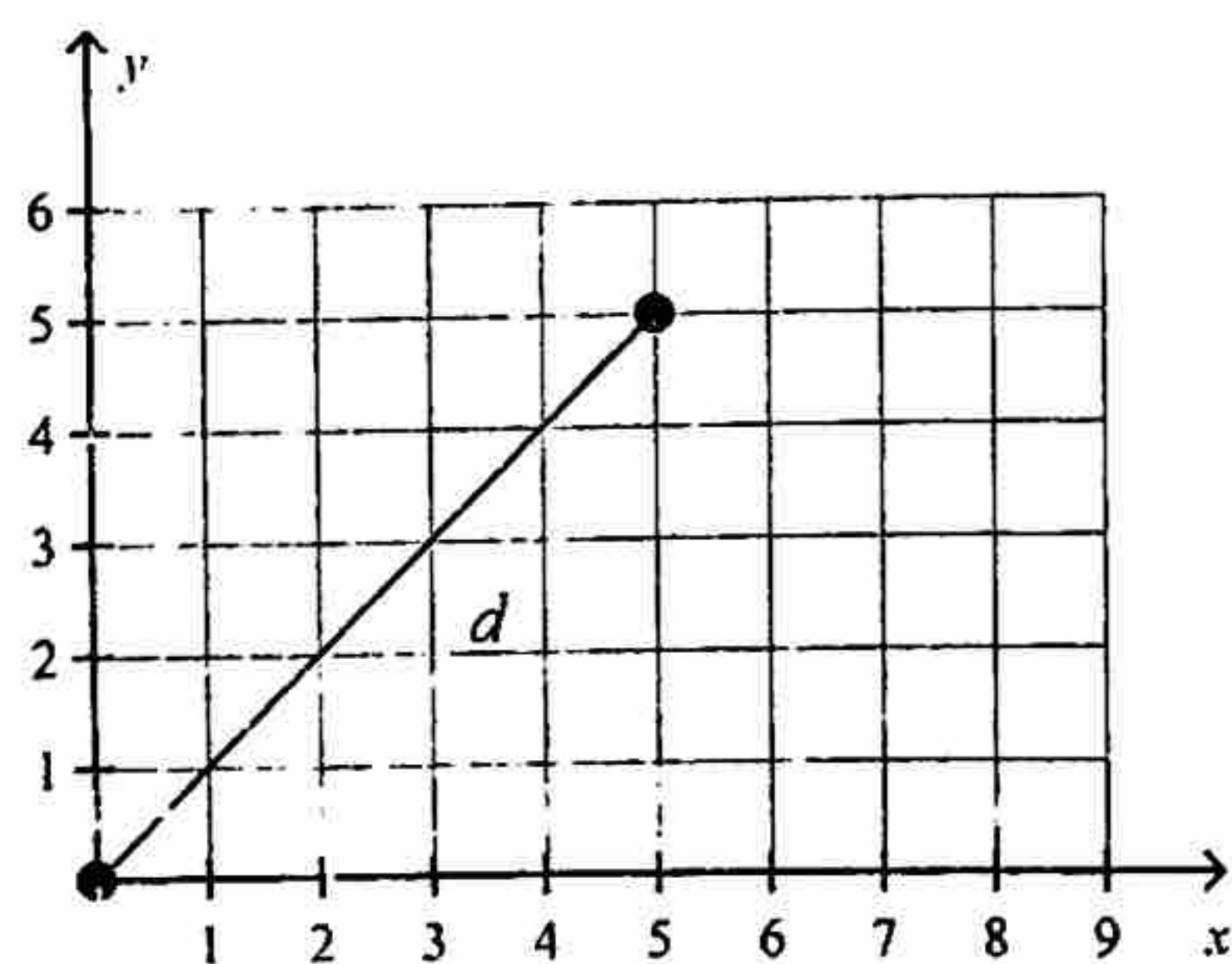
24. Square



- a. 33.9 in.
b. 24 in.
c. 48 in.
d. 72 in.

Find the distance d . Round your answer to the nearest tenth.

25.



- a. 10 units
b. 5 units
c. 7.1 units
d. 6.1 units

1. C
2. D
3. B
4. B
5. A
6. B
7. C
8. C
9. D
10. D
11. A
12. D
13. C
14. B
15. B

16. B
17. D
18. A
19. C
20. A
21. D
22. A
23. D
24. A
25. C