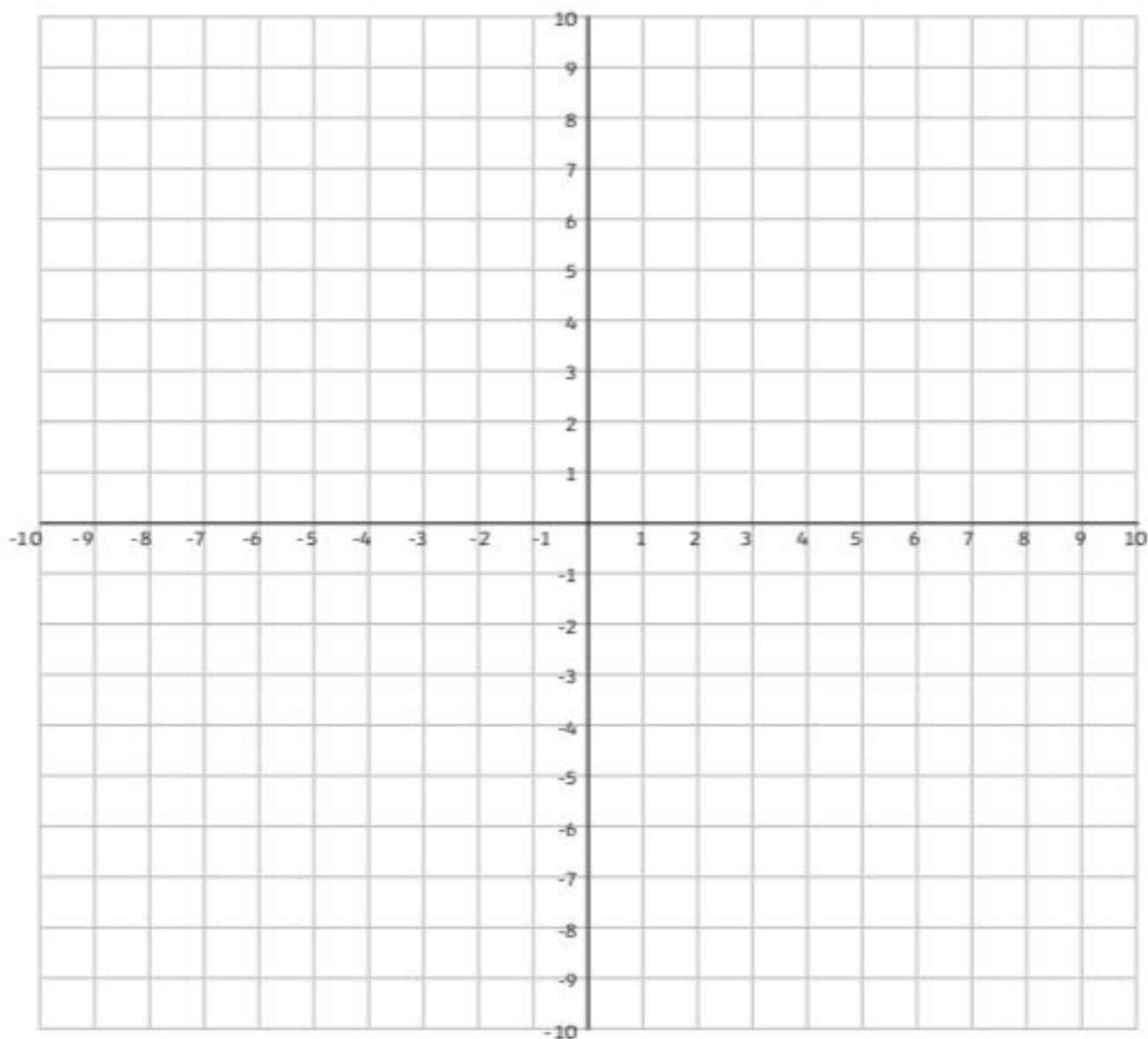


Shape Coordinates

For each letter, plot the coordinates to reveal a missing shape.

For each shape, you need to do the following:

- name the shape;
- describe the properties of the shape (think about sides, angles, how it can be described).



- A. $(2,2)$ $(8,2)$ $(8,-2)$ $(2,-2)$ $(2,2)$ _____
- B. $(-7,5)$ $(-7,8)$ $(-3,5)$ $(-7,5)$ _____
- C. $(-7,-2)$ $(-9,-4)$ $(-7,-6)$ $(-5,-4)$ $(-7,-2)$ _____
- D. $(5,-4)$ $(3,-6)$ $(5,-9)$ $(7,-6)$ $(5,-4)$ _____
- E. $(4,9)$ $(2,6)$ $(7,6)$ $(9,9)$ $(4,9)$ _____

Helicopter Coordinates

Amazing Fact

In 1861, the word 'helicopter' was first used for a machine which did not actually lift off the ground.

Challenge

Using the four-quadrant grid on the next page, carefully plot these points. Then, use a ruler to draw a line between each pair of coordinates. If you have done this correctly, it should reveal a special shape!

Coordinates

- | | | | |
|------------------------|-----------------------|-------------------------|-------------------------|
| 1. $(-7,-6)$ $(-7,-7)$ | 12. $(5,3)$ $(3,5)$ | 23. $(-6,6)$ $(-1,6)$ | 34. $(-9,3)$ $(-3,-4)$ |
| 2. $(-7,-7)$ $(4,-7)$ | 13. $(3,5)$ $(1,5)$ | 24. $(-1,6)$ $(-1,5)$ | 35. $(-3,-4)$ $(-4,-6)$ |
| 3. $(4,-7)$ $(5,-6)$ | 14. $(1,5)$ $(1,6)$ | 25. $(-1,5)$ $(1,5)$ | 36. $(-4,-6)$ $(-7,-6)$ |
| 4. $(5,-6)$ $(5,-5)$ | 15. $(1,6)$ $(6,6)$ | 26. $(1,5)$ $(-3,5)$ | 37. $(-9,3)$ $(-2,-4)$ |
| 5. $(5,-5)$ $(3,-6)$ | 16. $(6,6)$ $(6,7)$ | 27. $(-3,5)$ $(-4,3)$ | 38. $(-2,-4)$ $(-3,-6)$ |
| 6. $(3,-6)$ $(2,-4)$ | 17. $(6,7)$ $(1,7)$ | 28. $(-4,3)$ $(-8,5)$ | 39. $(-3,-6)$ $(2,-6)$ |
| 7. $(2,-4)$ $(6,-2)$ | 18. $(1,7)$ $(1,8)$ | 29. $(-8,5)$ $(-7,6)$ | 40. $(2,-6)$ $(1,-4)$ |
| 8. $(6,-2)$ $(2,1)$ | 19. $(1,8)$ $(-1,8)$ | 30. $(-7,6)$ $(-8,7)$ | 41. $(1,-4)$ $(-2,-4)$ |
| 9. $(2,1)$ $(5,3)$ | 20. $(-1,8)$ $(-1,7)$ | 31. $(-8,7)$ $(-10,3)$ | |
| 10. $(5,3)$ $(6,2)$ | 21. $(-1,7)$ $(-6,7)$ | 32. $(-10,3)$ $(-10,2)$ | |
| 11. $(6,2)$ $(6,-2)$ | 22. $(-6,7)$ $(-6,6)$ | 33. $(-10,2)$ $(-9,3)$ | |



You could also try to find out:

- what helicopters are used for;
- who built the first flying helicopter and when;
- how helicopters work.

Helicopter Coordinates

