

Honors Core II
Chapter 2 Retake Review

Name _____

Date _____ Period _____

Find the sum or difference.

1. $(3y^2 - 2y + 4) - (y^2 + 3y - 8)$

2. $(3m - 3m^3) + (14 - 8m^3 + 5m^2 - m)$

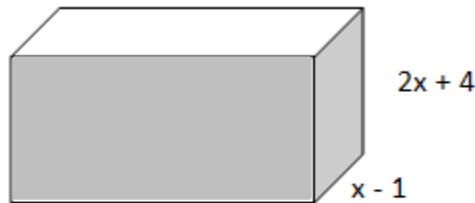
Find the product.

3. $(2n - 3)(4n^2 - 6n - 5)$

4. $(4x - 7y)^2$

5. $(2x - 1)^3$

6. Find the area of the shaded region.



Simplify:

7. $-2x(3x^2 + 5) - (x - 7)(2x - 1)$

Find two polynomials that have a sum of degree 5 and a product of degree 8 if possible.

Solve the equation for x.

9. $x^2 - 4 = 40$

10. $2x^2 - 20 = -30$

11. $-3x^2 = 18$

Simplify:

12. $\sqrt{-72}$

13. $3 + \sqrt{-125}$

14. $4 - \sqrt{-36}$

Simplify:

15. $(24 - 15i) - (16 + 7i)$

16. $(5 + 2i) + (-5 + 4i)$

17. $-5i(4 - 2i)$

18. $(3 - 2i)(4 + 2i)$

19. $2i^3(-2 + i)(-3 - i)$

20. $\frac{2}{5i}$

21. $\frac{2i}{4-2i}$

22. $\frac{i-2}{-2-3i}$

Given: $z = -2 - 4i$ $w = -3 + 4i$

Find:

23. $-z$

24. \bar{z}

25. $|w|$

26. $\overline{z-w}$

27. $2z + \overline{w}$

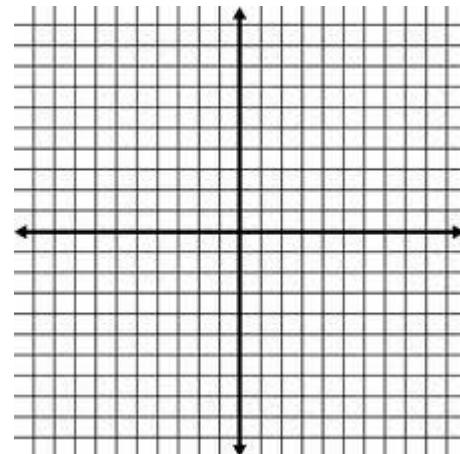
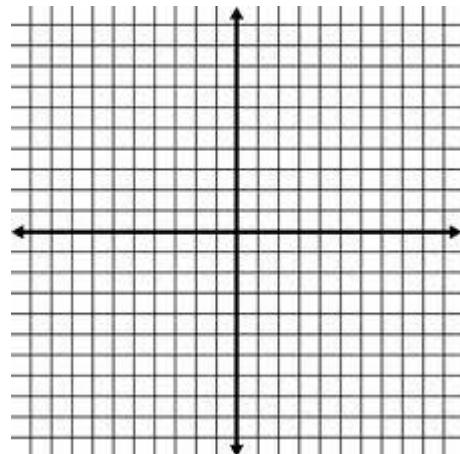
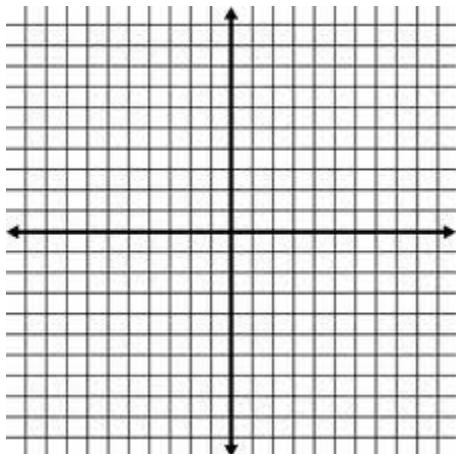
28. $|3z - 2w|$

Graph the complex number.

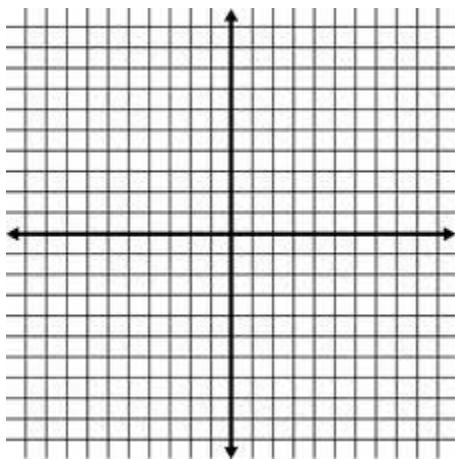
29. $2 - 6i$

30. $-3i$

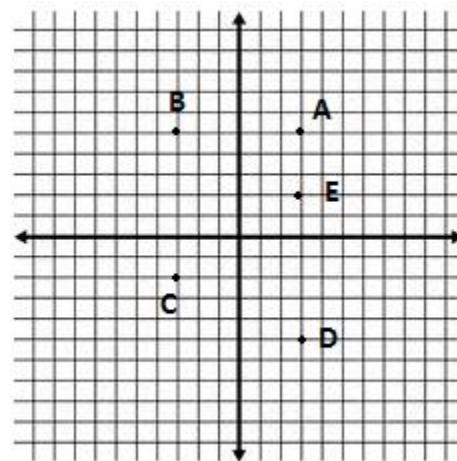
31. 6



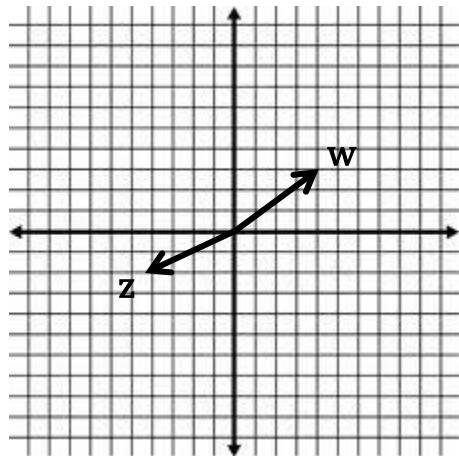
32. Graph $(-3 - 4i)i^3$



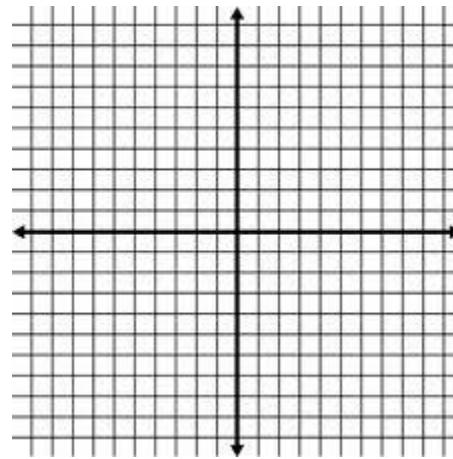
33. Which 2 points are conjugates?



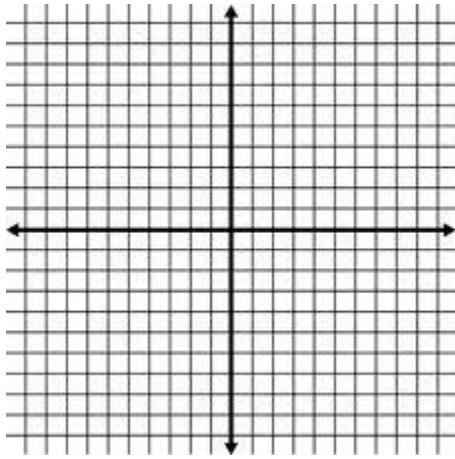
Use the following graph for questions 34-36.



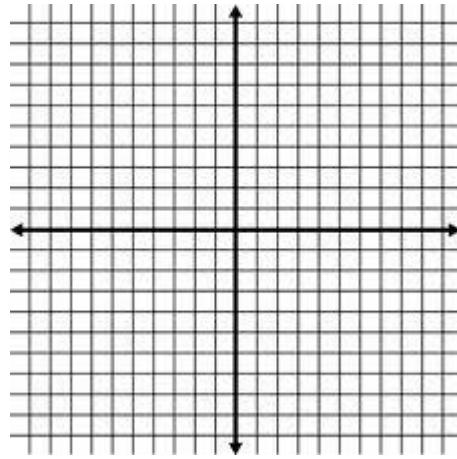
34. Graph $z - w$



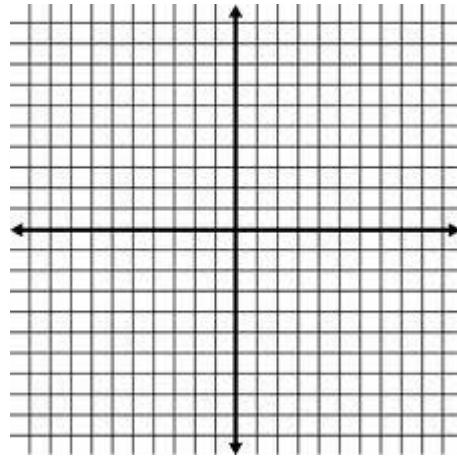
35. Graph $3z$



36. Graph $-w - 2z$



37. Graph wi



38. Order the following complex numbers from least to greatest, based on how far each number is from the origin.

$$5 + 6i$$

$$3 - 7i$$

$$8$$

$$-6 - 4i$$