Honors Math II

Quarter 1 Extra Review

Name_____

Period_____Date_____

Simplify.

1. $(-6m^3)(2m^4n^5)$

2. $(-3x^4)^3$

3. $\left(\frac{3m^2}{n^4}\right)^3$

4. $3\sqrt{7}\left(4\sqrt{2}-5\sqrt{3}\right)$

5. $\sqrt[6]{\sqrt[4]{2x}}$

6. $\sqrt{2x}\cdot\sqrt[3]{2x}$

7. $\left(\frac{m^{10}}{n^5}\right)^{\frac{3}{5}}$

8. $(4u^2v^{10})^2(u^2v^3)^{-2}$

9. $\sqrt[6]{\frac{x^{36}y^{42}}{z^{-12}}}$

Find the sum or difference.

10. $(3m-3m^3)-(14-8m^3+5m^2-m)$

Find the product.

11. $(2n-3)(4n^2+2n-5)$

12. $(4x+1)^2$

Solve the equation for x.

13. $2x^2-10=-30$

Simplify.

14. $\sqrt{-125}$

Simplify:

15. $\frac{2i}{3+2i}$

16. $(3-2i)(4+2i)$

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

Find:

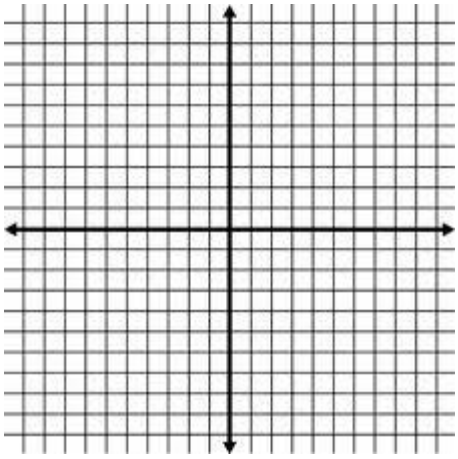
17. $|w|$

18. $2z + \overline{w}$

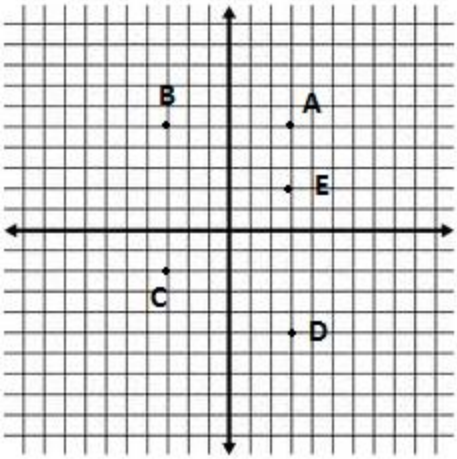
19. $|3z - 2w|$

Graph the complex number.

20. $2 - 6i$



21. Which 2 points are conjugates?

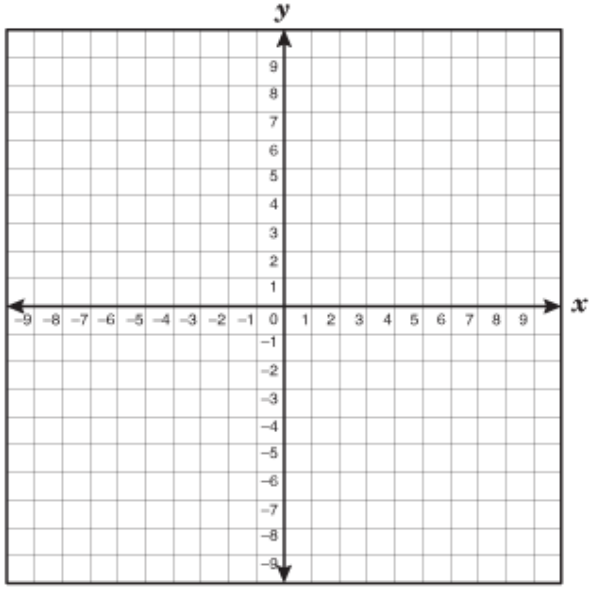


Identify the domain and range of the given relation. Then represent the relation using a graph and a mapping diagram.

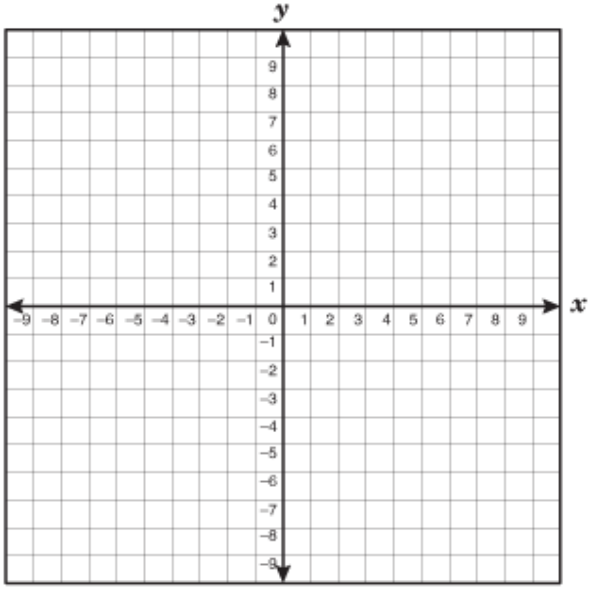
22. (5, -2), (-3, -2), (3, 3), (-1, -1)

Graph the following equations and state the domain and range.

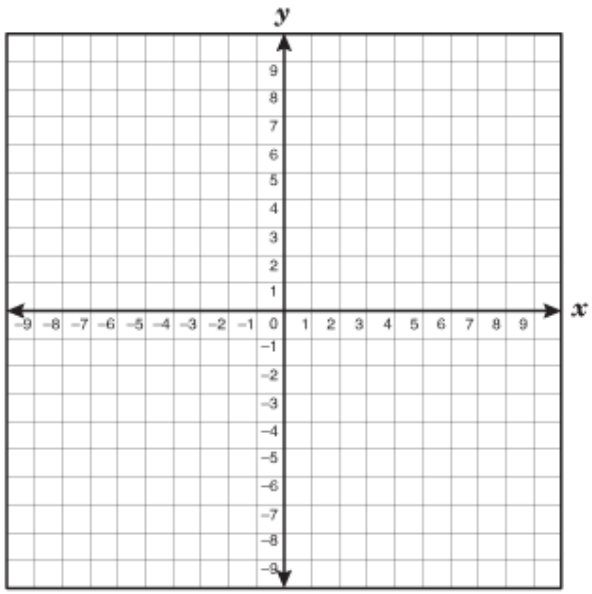
23. $x^2 + (y - 3)^2 = 7$



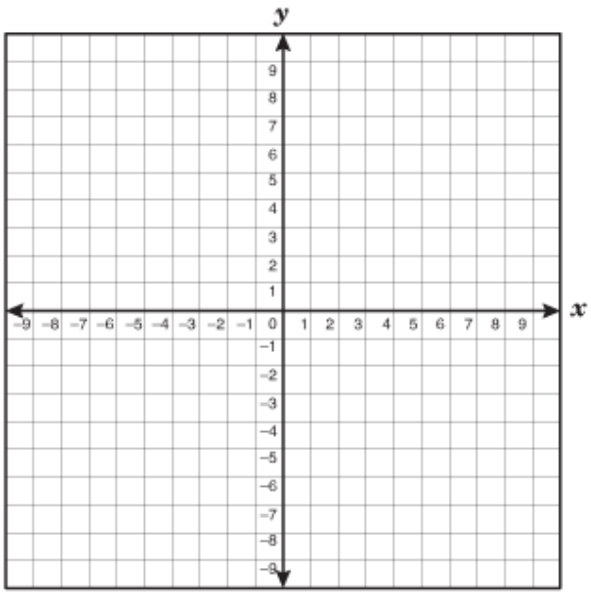
24. $y = -2(x + 3)^2 + 5$



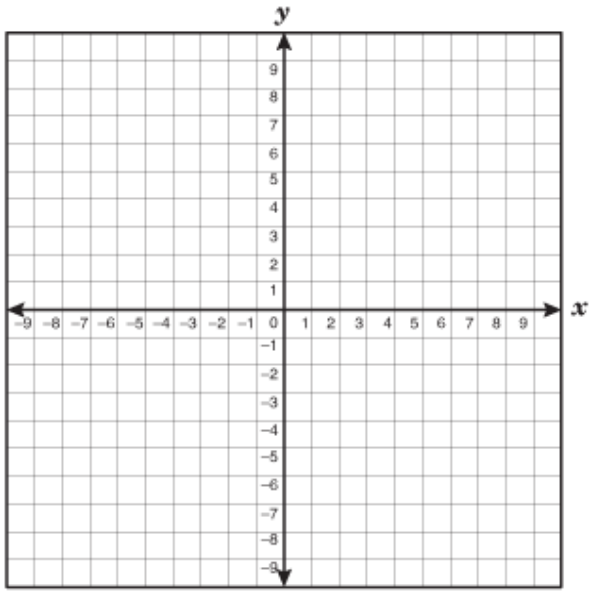
25. $y = \frac{1}{2}\sqrt[3]{x-2} + 1$



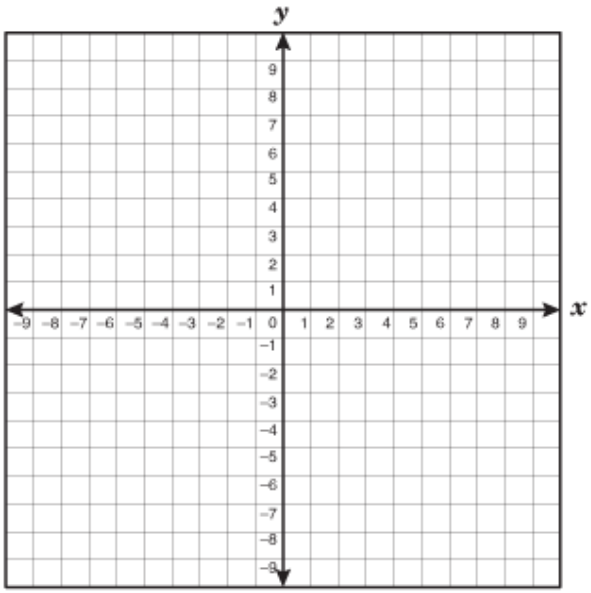
26. $y = -\sqrt{x+4} + 5$



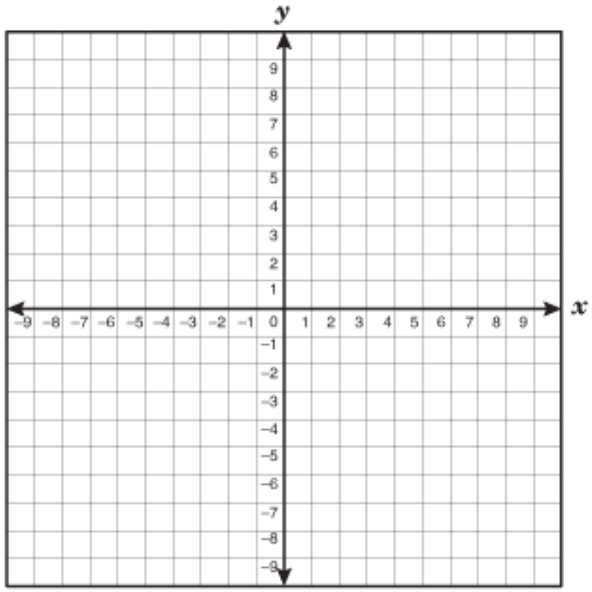
27. $y = 3x^2 - 6x - 1$



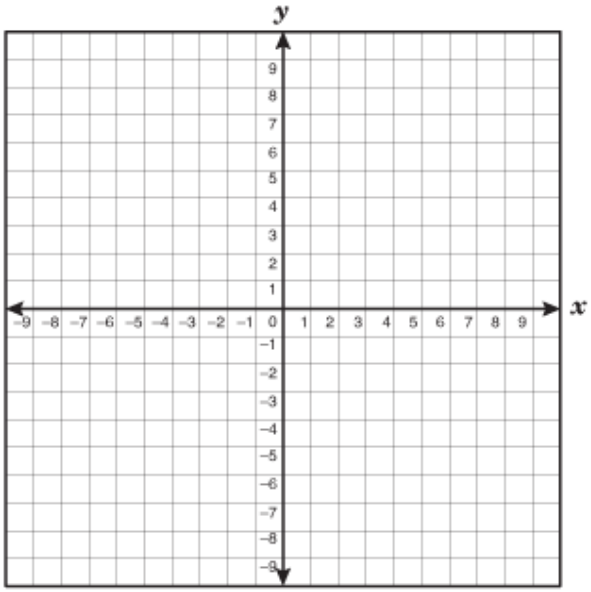
28. $y = -2x^2 - 16x - 36$



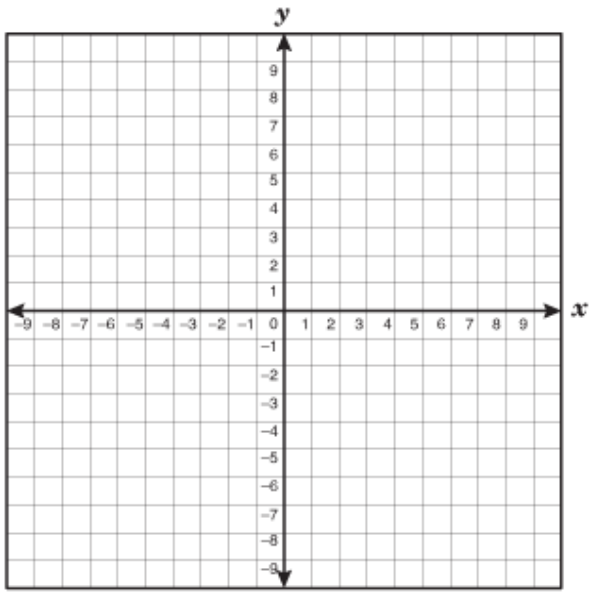
29. $(x-1)^2 + (y+4)^2 = 12$



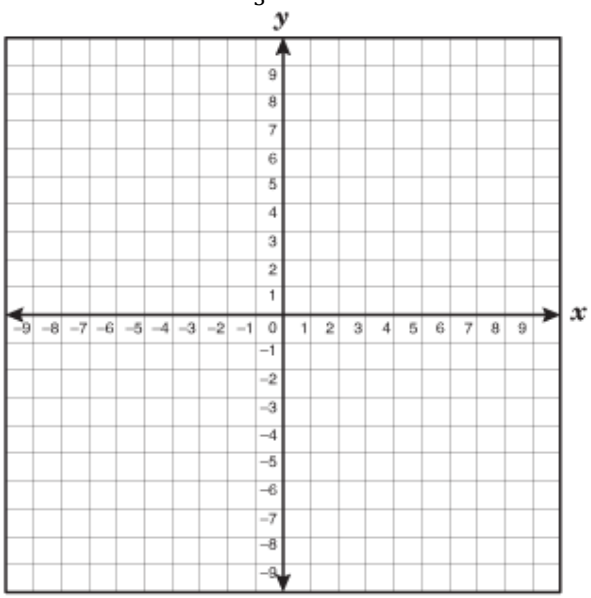
30. $6x - 4y = 24$



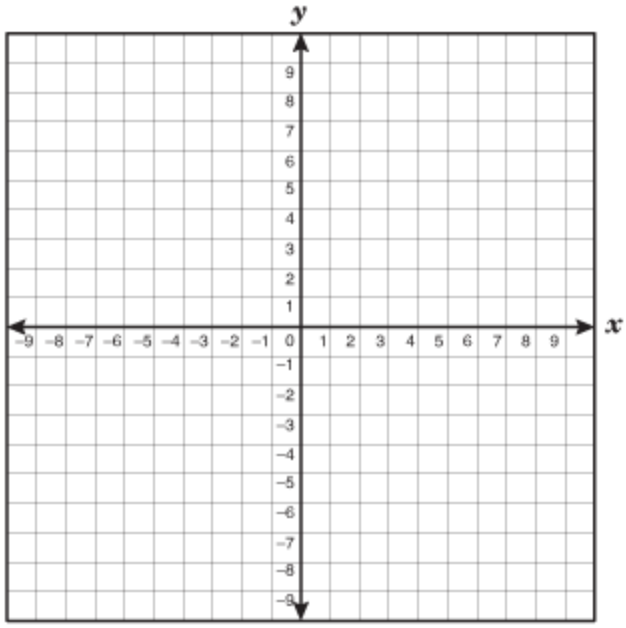
31. $y = 5$



32. $y = -\frac{2}{3}|x - 4| + 8$



33. Graph and write the equation of the line through the points (0, 0) and (-2,-8).
What is the domain, range and x and y intercepts of the line?



Write the equation of the lines that are parallel and perpendicular to the above equation that goes through the point (-5, 4).
Graph the 2 lines.
What is the domain, range and x and y intercepts of the 2 lines?