

8 Xavier Summer 2026 Math Packet

Name: _____

Complete the following problem. Show **all your work** and **circle your final answer**. Please bring this packet with you on the first day of school.

Decimals

Find the sum, difference, product or quotient.

1) $3.7 + 2.81 =$

2) $9.3 - 2.46 =$

3) $(4.01)(2.2)$

4) $36.5 \div .5 =$

Fractions

Find the sum, difference, product or quotient.

5) $\frac{2}{3} + 6\frac{4}{5} =$

6) $3\frac{3}{4} + 2\frac{3}{8} =$

7) $6\frac{1}{6} - \frac{1}{4} =$

8) $4\frac{1}{4} - 3\frac{1}{3} =$

9) $\frac{4}{5} \cdot 2\frac{1}{2} =$

10) $1\frac{1}{5} \cdot 2\frac{1}{3} =$

11) $\frac{2}{7} \div 4 =$

12) $3\frac{1}{8} \div \frac{1}{6} =$

Integers

Find the sum, difference, product or quotient.

$$13) -15 + 22 =$$

$$14) 4 + (-13) =$$

$$15) -8 + (-5) =$$

$$16) -8 - 6 =$$

$$17) 20 - (-5) =$$

$$18) -3 - (-11) =$$

$$19) (-9)(8) =$$

$$20) (-7)(-6) =$$

$$21) (9)(-3) =$$

$$22) -36 \div (-9) =$$

$$23) -45 \div 5 =$$

$$24) 54 \div (-6) =$$

Order of Operations

$$25) 3 + 6(4 - 2) =$$

$$26) (5 + 3)^2 - 16 \div 2 =$$

$$27) 48 \div 4 (2 + 1) =$$

Expressions

Evaluate the expression. Let $x = -2$ and $y = 4$. **Show your substitutions.**

28) $2x + 3y =$

29) $x^2 - y =$

30) $5(x + y) =$

Combining Like Terms

Simplify each expression

31) $3x + 4y - 7x + 2y$

32) $6x^2 + 4x + 8x^2 - 2x$

33) $2xy + 6x - 8y + 12xy$

34) $7 - 6x + 7xy - 6y + 6$

Distributive Property

Simplify each expression and combine like terms when possible

35) $4(x + 7)$

36) $5x(6x + 11y)$

37) $2(x^2 + 8) - 4x(x + 9)$

Greatest Common Factor

Simplify each expression.

38) $24x + 15$

39) $6x^2 - 8x + 2$

40) $12x^2y - 18xy$

Exponents

Write each expression with only positive exponents.

41) $3^2 \cdot 3^3 =$

42) $(2^3)^2 =$

43) $\frac{4^5}{4^2} =$

Geometry Basics

44) Find the area and perimeter of a square with side length of 7 cm.

45) Find the area of a triangle with base 12 inches and height 8 inches.

Draw an example.

46) An acute angle

47) A right angle

48) An obtuse angle

Coordinate Plane

49) Identify the quadrant for each point.

a) $(3, -2)$ _____ b) $(-4, 5)$ _____

c) $(2, 7)$ _____ d) $(-6, -1)$ _____

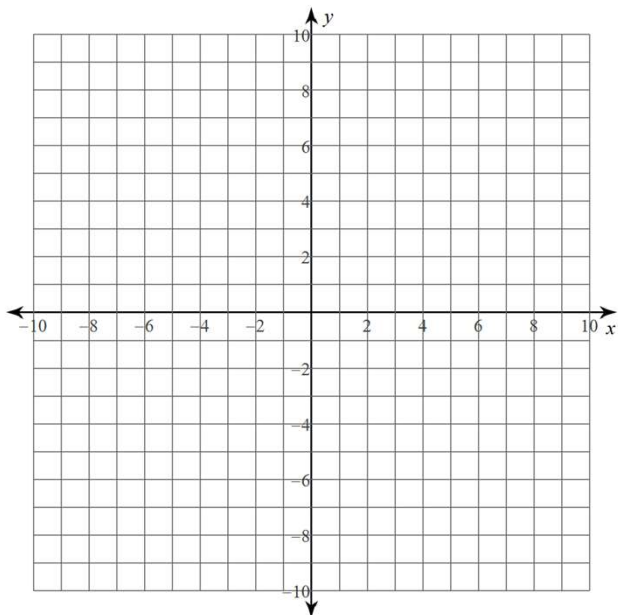
50) Given the coordinates of a point that is on the x-axis.

51) Give the coordinates of a point that is on the y-axis.

52) Plot and label the points.

A: $(-5, -8)$ B: $(0, 7)$

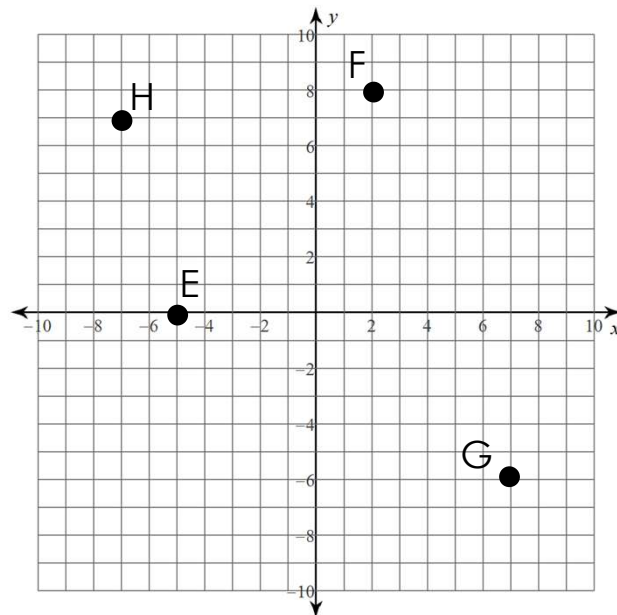
C: $(2, -4)$ D: $(-6, 3)$



53) State the coordinates.

E: _____ F: _____

G: _____ H: _____



Word Problems

54) Sarah has \$120. She spends x dollars each day. Write an expression to represent how much money she has left after 5 days.

55) A rectangle's length is 4 times its width. Write an equation to find the perimeter if the width is represented by w .

56) Colin spent half of his weekly allowance playing mini-golf. To earn more money, his parents let him wash the car for \$10. What is his weekly allowance if he ended with \$16?

57) Paul rented a bike. It cost \$12 plus \$6 per hour. Paul paid \$42 for the rental. How many hours did Paul have the bike?

58) Margaret was given \$17 for her birthday. She now has \$22. How much money did she start with?

59) A frame is 3 inches tall and 4 inches wide. If it is enlarged to a height of 12 inches, how wide will it be?

Which section was the easiest?

Which section was the most challenging?