

8 Xavier Summer 2025 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.

3) $-15 + 22 =$

14) $4 + (-13) =$

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

6) $-8 - 6 =$

17) $20 - (-5) =$

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

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

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

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

12) $-36 \div (-9) =$

23) $-45 \div 5 =$

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

Order of Operations

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

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

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

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

28) $2x + 3y =$

29) $x^2 - y =$

30) $5(x + y) =$

Properties of Numbers

Identify the algebraic property used:

31) $a + b = b + a$

32) $a \cdot 1 = a$

33) $a + 0 = a$

34) $a(b + c) = ab + ac$

Exponents

Write your answer in exponential form.

35) $3^2 \cdot 3^3 =$

36) $(2^3)^2 =$

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

Ratios, Rates, and Proportions

38) If $\frac{4}{6} = \frac{x}{9}$, find x .

39) A car travels 180 miles in 3 hours. What is the rate in miles per hour?

40) If 5 pencils cost \$2.50, what is the cost of 1 pencil?

Geometry Basics

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

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

Draw an example.

53) An acute angle

54) A right angle

55) An obtuse angle

Coordinate Plane

56) Identify the quadrant for each point.

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

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

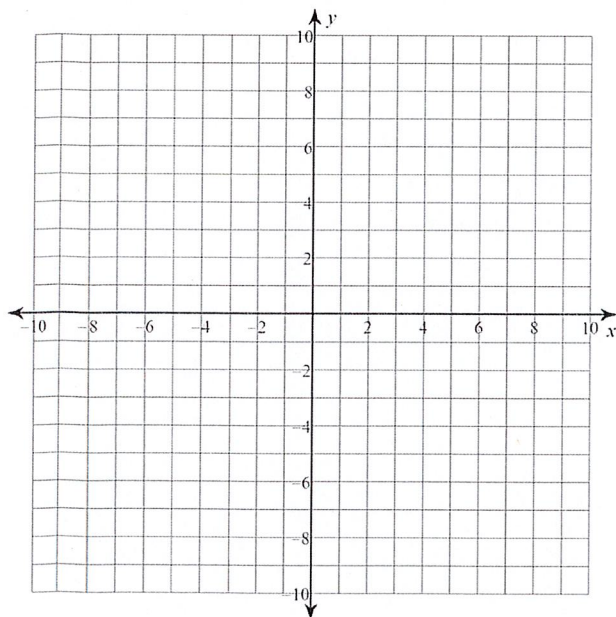
57) Given the coordinates of a point that is on the x-axis.

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

59) Plot and label the points.

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

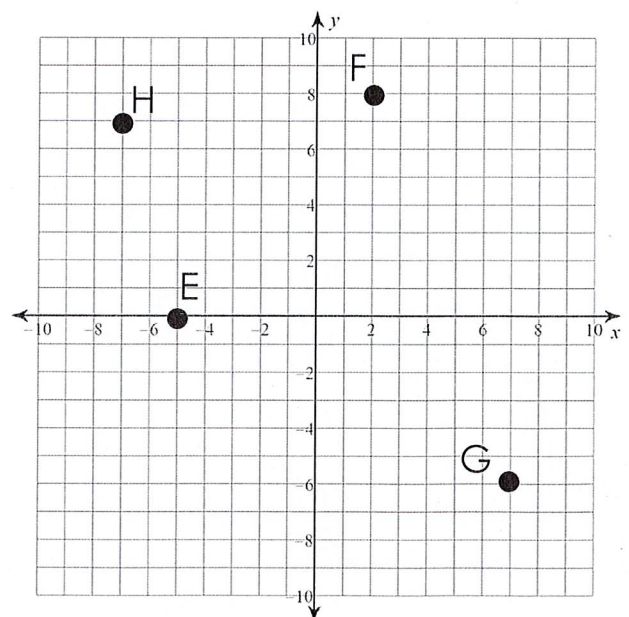
C: (2, -4) D: (-6, 3)



60) State the coordinates.

E: _____ F: _____

G: _____ H: _____



Word Problems

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

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

63) 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?

64) 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?

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

66) 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?