Summer Math Packet – Entering ALGEBRA 1

How should you use the materials provided?

1. ALL STUDENTS must prepare for MULTIPLICATION FACT FLUENCY. Complete at least 3 pages to show your fluency and prove to yourself you can get the required score for your grade level.

2. Take the PRETEST and use the attached answer key to check your work.
   - If you DID WELL, use the portions of the summer math packet you need to help you prepare. QR codes and sample problems are available to help you practice.
   - If you DID NOT do well, complete the whole summer math packet and use this as an opportunity to STRENGTHEN your foundation. QR codes and sample problems are available to help you practice.

3. Upon returning to school, you will have a brief review of these concepts with your teacher and then take a SUMMER MATH QUIZ. This will be your first quiz grade of the year.

Please use this summer to freshen up your math skills! Come ready for a great year of learning!

Sincerely,

PBS Middle Math Department

Pretest

Student: _____	**Instructor:** Holly LeBlanc	**Assignment:** Algebra CP Summer Math Practice
Date: _____	**Course:** Algebra CP 2026-2027	

1. Add.

$-15+(-19)$

$-15+(-19)=$ ☐

2. Evaluate the expression.

$-91+54$

$-91+54=$ ☐

3. Add.

$4.6+(-1.3)$

$4.6+(-1.3)=$ ☐ (Type an integer or a decimal.)

4. Subtract.

$-19-(-1)$

$-19-(-1)=$ ☐

5. Subtract.

$-9-(-15)$

$-9-(-15)=$ ☐

6. Evaluate.

$42.6-48.1$

$42.6-48.1=$ ☐

7. Multiply.

$-9 \cdot 4$

$-9 \cdot 4=$ ☐

8. Multiply.

$$-\frac{1}{7}\left(-\frac{2}{3}\right)$$

$$-\frac{1}{7}\left(-\frac{2}{3}\right)=$$ ☐ (Type a simplifed fraction.)

*9. Add: $5+22+(-15)$

$5+22+(-15)=$ ☐

*10. Multiply.

$-5(-3)(-5)$

$-5(-3)(-5)=$ ☐

11. Multiply.

$-9 \cdot 3$

$-9 \cdot 3 =$ ☐

*12. Divide.

$$\frac{120}{-20}$$

Select the correct choice below and fill in any answer boxes in your choice.

○ **A.** $\frac{120}{-20} =$ ☐

○ **B.** The answer is undefined.

13. Evaluate the expression when $x = 5$.

$6x - 23$

The value of $6x - 23$ when $x = 5$ is ☐.

14. Simplify the expression by combining like terms.

$6d + 4d$

$6d + 4d =$ ☐

15. Simplify the expression by combining any like terms.

$9w - 4w + 7w$

$9w - 4w + 7w =$ ☐

16. Simplify the expression by combining any like terms.

$4b - 4 - 7b - 5$

$4b - 4 - 7b - 5 =$ ☐

17. Simplify the expression by combining any like terms.

$m - m + 5m - 6$

$m - m + 5m - 6 =$ ☐

18. Simplify the expression by combining any like terms.

$7g - 4 - 8 - 7g$

$7g - 4 - 8 - 7g =$ ☐

19. Simplify the expression. First, use the distributive property to remove any parentheses.

$5(y + 5)$

$5(y + 5) =$ ☐

20. Multiply.

$-3(2y+7)$

$-3(2y+7) =$ ☐

21. Simplify the expression.

$(3+2)(5+2)$

$(3+2)(5+2) =$ ☐

*22. Simplify.

$$\frac{3(8-6)+2}{2^2-2}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** $\frac{3(8-6)+2}{2^2-2} =$ ☐

○ **B.** The expression is undefined.

*23. Simplify.

$9 \div 0 + 29$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** $9 \div 0 + 29 =$ ☐

○ **B.** The expression is undefined.

*24. Simplify.

$2^3 \cdot 4 - (50 \div 10)$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** $2^3 \cdot 4 - (50 \div 10) =$ ☐

○ **B.** The expression is undefined.

*25. Simplify.

$$\frac{2+4^2}{5(21-17)-3^2-8}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ **A.** $\frac{2+4^2}{5(21-17)-3^2-8} =$ ☐

○ **B.** The expression is undefined.

*26. Add the polynomials.

$(-5z^2-3z+4)+(-5z^2+4z+9)$

$(-5z^2-3z+4)+(-5z^2+4z+9)=$ ☐

27. Simplify the given expression.

$\frac{5}{8}\cdot\frac{5}{9}-\frac{1}{7}$

$\frac{5}{8}\cdot\frac{5}{9}-\frac{1}{7}=$ ☐ (Type an integer or a fraction. Simplify your answer.)

28. Simplify the given expression and enter the answer in numerical terms.

$3[4+9(8-4)]$

$3[4+9(8-4)]=$ ☐

29. Simplify the given expression and enter your answer in numerical terms.

$\frac{7+|3-1|+3^2}{2-1}$

$\frac{7+|3-1|+3^2}{2-1}=$ ☐ (Type an integer or a fraction. Simplify your answer.)

30. Solve the equation for r.

$r+2.6=-5.5$

$r=$ ☐ (Type a decimal.)

31. Solve the equation for y.

$6y-7=7y$

$y=$ ☐

32. Solve the equation. Check the solution.

$5z-6=7z-3z$

$z=$ ☐

33. Solve the equation for x.

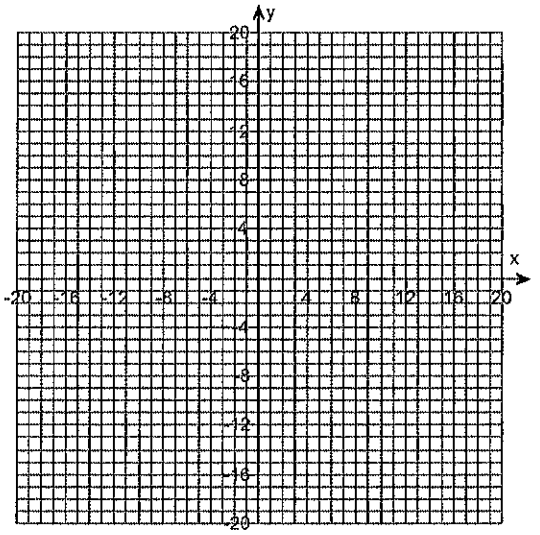
$8(x-6)-9=-57$

$x=$ ☐ (Type an integer or a fraction. Simplify your answer.)

34. Graph the equation.

$y = 3x + 6$

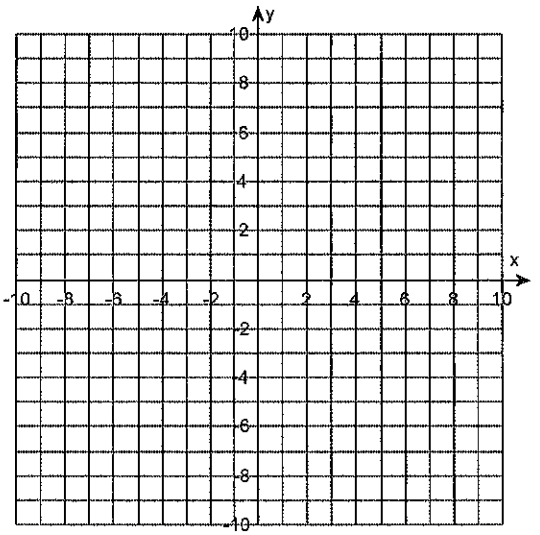
Use the graphing tool to graph the line.



35. Graph the linear equation.

$y = -9x$

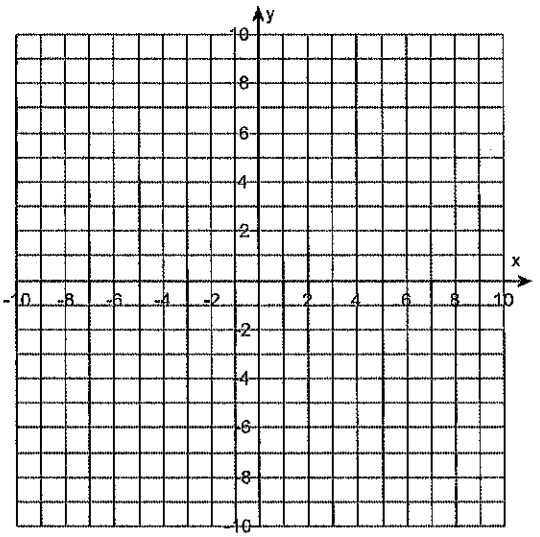
Use the graphing tool to graph the linear equation.



36. Graph the linear equation.

$y = -\frac{2}{5}x + 3$

Use the graphing tool to graph the linear equation.



37. Simplify the given polynomial by combining like terms.

$24x^2 - 9x^2 - y$

$24x^2 - 9x^2 - y =$ ☐

38. Simplify the polynomial by combining like terms.

$3x - 4x + 7x$

$3x - 4x + 7x =$ ☐ (Simplify your answer.)

*39. Add the polynomials.

$(3x + 8) + (-2x - 19)$

$(3x + 8) + (-2x - 19) =$ ☐

*40. Subtract the polynomials.

$(6a - 2) - (a + 5)$

$(6a - 2) - (a + 5) =$ ☐

*41. Multiply.

$(7ab)\left(9a^2b^4\right)$

$(7ab)\left(9a^2b^4\right) =$ ☐

*42. Multiply.

$8r(-4r + 2)$

$8r(-4r + 2) =$ ☐
(Simplify your answer.)

*43. Factor.

$4x^3 + 12x^2 + 20x$

$4x^3 + 12x^2 + 20x =$ ☐

*44. Factor.

$z^7 - 15z^5$

$z^7 - 15z^5 =$ ☐

*45. Solve the equation.

$23 - 6x = 13 + 4x$

$x =$ ☐

*46. Solve the equation.

$10 + 5(z - 2) = 4z + 1$

$z =$ ☐

*47. Translate the following sentence into an equation. Then solve the equation.

Five times a number, added to 6, is 46. Find the number.

Translate the sentence into an equation.

☐ (Type an equation using x as the variable. Do not simplify.)

The unknown number is ☐.

*48. Use the quotient rule for exponents to simplify.

$$\frac{y^{19}}{y^{6}}$$

$\frac{y^{19}}{y^{6}} =$ ☐

(Type your answer using exponential notation. Use positive exponents only.)

*49. Evaluate the expression.

$(-9)^{0}$

$(-9)^{0} =$ ☐

*50. Simplify. Use positive exponents for any variables. Assume that all bases are not equal to 0.

$7x^{-1}$

$7x^{-1} =$ ☐ (Simplify your answer.)

1. -34

2. -37

3. 3.3

4. -18

5. 6

6. -5.5

7. -36

8. $\frac{2}{21}$

9. 12

10. -75

11. -27

12. A. $\frac{120}{-20} = \boxed{-6}$

13. 7

14. 10d

15. 12w

16. $-3b-9$

17. $5m-6$

18. -12

19. $5y+25$

20. $-6y-21$

21. 35

22. A. $\dfrac{3(8-6)+2}{2^2-2} =$ **4**

23. B. The expression is undefined.

24. A. $2^3 \cdot 4-(50 \div 10) =$ **27**

25. A. $\dfrac{2+4^2}{5(21-17)-3^2-8} =$ **6**

26. $-10z^2+z+13$

27. $\dfrac{103}{504}$

28. 120

29. 18

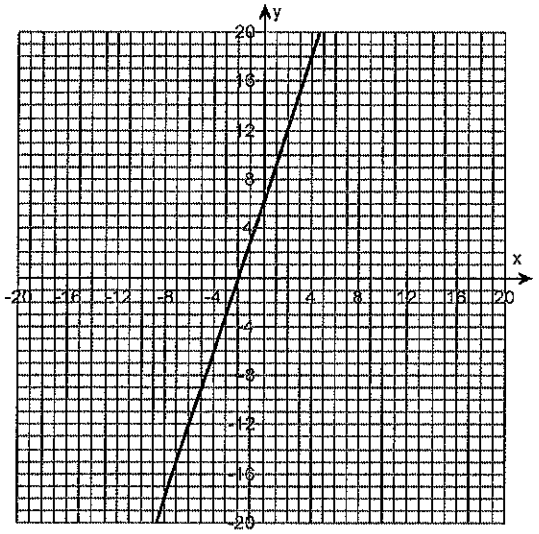
30. -8.1

31. -7

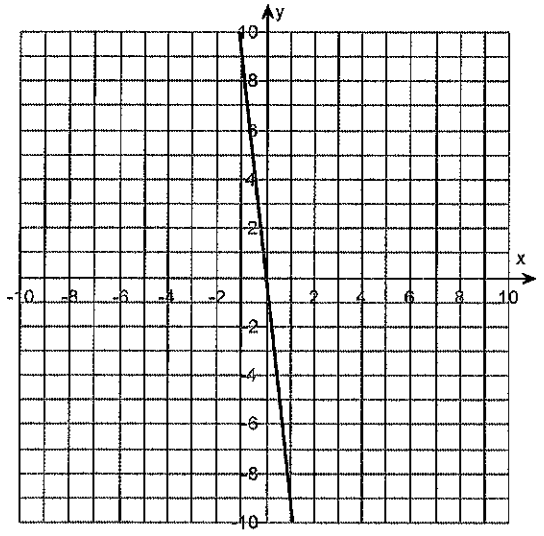
32. 6

33. 0

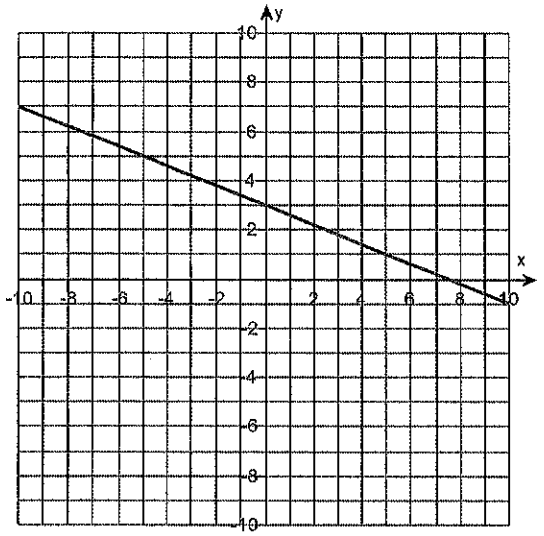
34.


y
x
20
16
12
8
4
-4
-8
-12
-16
-20
-20 -16 -12 -8 -4 4 8 12 16 20

35.


y
x
10
8
6
4
2
-2
-4
-6
-8
-10
-10 -8 -6 -4 -2 2 4 6 8 10

36.


y
x
10
8
6
4
2
-2
-4
-6
-8
-10
-10 -8 -6 -4 -2 2 4 6 8 10

37. $15x^2 - y$

38. $6x$

39. $x - 11$

40. $5a - 7$

41. $63a^3b^5$

42. $-32r^2 + 16r$

43. $4x\left(x^2 + 3x + 5\right)$

44. $z^5\left(z^2 - 15\right)$

45. 1

46. 1

47. $6 + 5x = 46$

8

48. y^{13}

49. 1

50. $\frac{7}{x}$

Summer Packet 2026

Students Entering Algebra 1 College Prep

Purpose: This packet is designed to help students stay on track over the summer and enter 8th grade Algebra 1 confident and prepared for a great school year. Math teachers have selected the 6 skills that are important for the students' success in 8th grade Algebra 1. If a student struggles with these concepts, I highly recommend that they watch the instructional videos provided. The instructional videos are available by scanning the QR code with a smart phone. After watching the video that is linked, students can choose to continue watching videos on Khan Academy for extra help or work problems live on the site and get immediate feedback to see if their solution is correct. Watching videos and online practice is not required but may prove beneficial for students that often struggle in math or lose skills over the summer.

*****Further optional practice is attached to help students prepare for the summer math quiz. An additional key is provided to show how to solve similar problems.**

*****Students are expected to complete the math fact fluency attached. Please read instructions.**

Concept 1: Integer Operations

Directions: Solve each problem showing all steps and circle your answer. Evaluate each expression. NO CALCULATOR ALLOWED.

1. $68 + 22 + 50 - 36$

2. $84 + 80 - 67 + 68$

3. $96 + (-1) - 45 - 98$

Find each product.

4. $6 \times 7 \times -2$

5. $-10 \times 5 \times -7$

Find each quotient.

6. $-105 \div 5$

7. $\frac{-14(2)}{7}$

8. $\frac{21}{-7}$

Concept 2: Writing and Solving Multi-Step Equations

Directions: Solve the equation or inequality. Isolate the variable. Show all steps and circle your answers. NO CALCULATOR ALLOWED.

1. $18 = -3(m - 6)$

2. $-8(8n + 2) = 112$

3. $-20 = -4x - 6$

4. $12 = -4(-6x - 3)$

5. $5(2x - 1) = 25$

6. $3(2 - 5x) + 4(6x) = 12$

7. $5y + 2(y - 6) = 4(y + 1) - 2$

8. $4(2n + 1) = 3(6n + 3) + 1$

Write each sentence as an algebraic equation and solve.

9. The product of a number and 9 is 34.

10. The difference of a number and 10 is equal to 30.

Concept 3: Order of Operations

Directions: Simplify each expression. NO CALCULATOR ALLOWED.

1. $6 \cdot 3^2 + 2 \cdot 8$

2. $68 - 5 \cdot 2^3$

3. $3(1 + 2 \cdot 5) + 4$

4. $8 + 3(2 \cdot 6 - 1)$

5. $\frac{4+|6-2|+8^2}{4+6 \cdot 4}$

6. $5[3(2 + 5) - 5]$

7. $\frac{-3-2(-9)}{-15-3(-4)}$

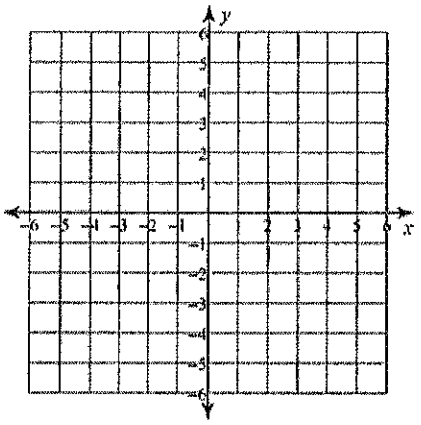
8. $5 + 2[(7 - 5)^2 + (1 - 3)]$

Concept 4: Graphing Linear Equations

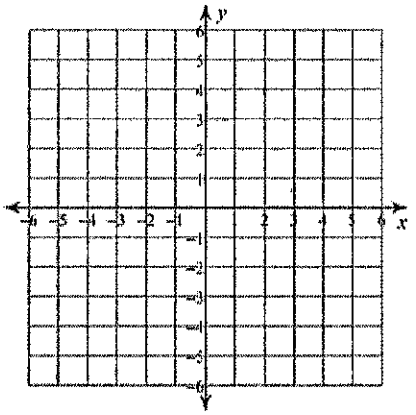
Directions: Sketch the graph of each line. Remember to use the y-intercept and the slope.

Slope-intercept form: $y = mx + b$

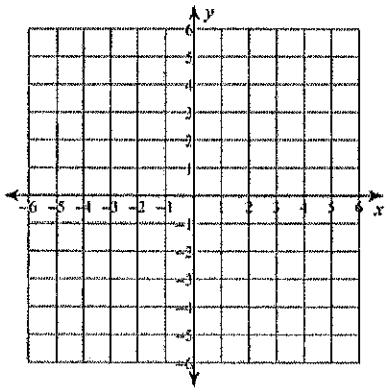
1. $y = \frac{7}{4}x - 2$ m= b=



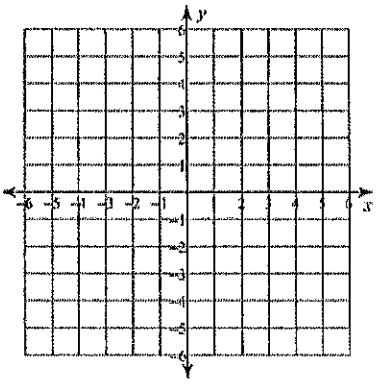
2. $y = -\frac{4}{3}x + 3$ m= b=



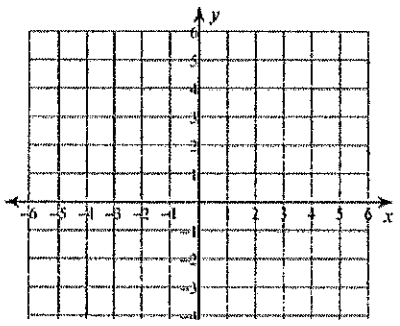
3. $y = -3$ m= b=



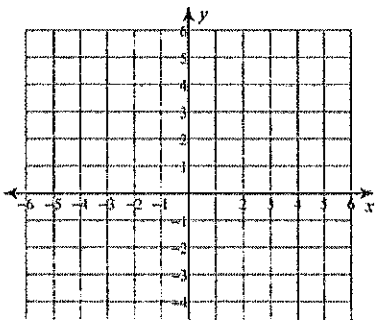
4. $y = 4x + 5$ m= b=



5. $y = \frac{2}{5}x - 1$ m= b=



6. $y = -\frac{3}{2}x + 2$ m= b=



Concept 5: Polynomials

Directions: Simplify. NO CALCULATOR ALLOWED ON THIS SECTION.

1. $(2h^7)(6h)$

2. $\frac{k^{10}}{k^4}$

3. $18x^2 - 7x + 5x^2 + 3x$

4. $(3x + 2) + (5x - 7)$

5. $(x - 7) - (5x + 3)$

6. $(12a^7)(-4a^2b^6)$

7. $\frac{n^3 \cdot n^5}{n^2}$

8. $3(2 - 5y)$

Concept 6: Factoring

Directions: Factor out the greatest common factor (GCF). You can check by multiplying. NO CALCULATOR ALLOWED ON THIS SECTION.

1. $3y^2 + 18y$

2. $10a^6 - 5a^8$

3. $9b^3 - 54b^2 + 9b$

4. $-35 + 14y - 7y^2$

5. $25z^3 - 20z^2$

6. $x^7 + x$

Concept 7: Exponents

Directions: Simplify using the rules of exponents. NO CALCULATOR ALLOWED ON THIS SECTION.

1. $\frac{p^7 q^{20}}{pq^{15}}$

2. $\frac{9a^4 b^7}{27ab^2}$

3. x^0

4. $4x^0$

5. $-7x^0$

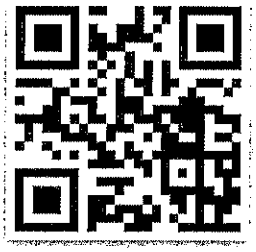
6. $7x^{-3}$

7. $(2x^{10}y^{-3})(9x^4y^{-7})$

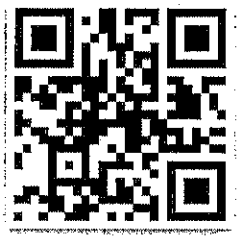
QR CODES:

Each QR code links to a video lesson. Some are on YouTube, and others are on Khan Academy. Watching the videos is not mandatory, but they can be used to review the material on this review.

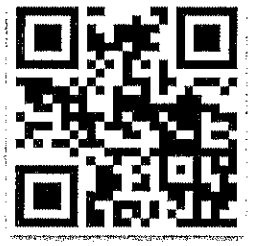
1. Integer Operations



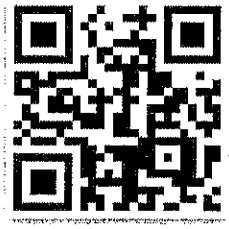

2. Writing and Solving Multi-Step Equations

3.Order of Operations



4. Graph Linear Equations in Slope-Intercept Form

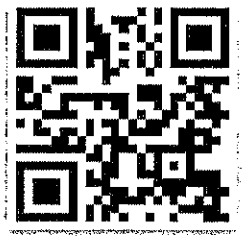


5. Adding and Subtracting Polynomials

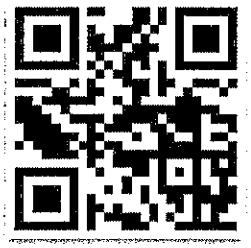
Multiplying Monomials

Dividing Monomials

6. Factoring GCF with Polynomials



7. Exponent Rules



Examples / Key

Student: _____	**Instructor:** Holly LeBlanc	**Assignment:** Algebra CP Summer Math Practice
Date: _____	**Course:** Algebra CP 2026-2027	

1. Add.

$-18+(-10)$

Same signs, add + keep the sign.

$-18+-10 = -28$

$-18+(-10)=$ -28

2. Evaluate the expression.

$-91+52$

Different signs, subtract + keep the sign of the number farther from zero.

$91 - 52 = 39$

$-91+52=$ -39

3. Add.

$1.8+(-5.6)$

$5.6 - 1.8 = 3.8$

$1.8+(-5.6)=$ -3.8 (Type an integer or a decimal.)

4. Subtract.

$-16-(-14)$

$-16--14 = -16+14 = -2$

$-16-(-14)=$ -2

5. Subtract.

$-18-(-16)$

$-18--16 = -18+16 = -2$

$-18-(-16)=$ -2

6. Evaluate.

$31.1-32.3$

$32.3 - 31.1 = 1.2$

$31.1-32.3=$ -1.2

7. Multiply.

$-4 \cdot 2$

Multiply + Divide with different signs gives a negative number.

$-4 \cdot 2=$ -8

8. Multiply.

$-\frac{1}{4}\left(-\frac{7}{9}\right) = \frac{7}{36}$

Multiply + divide with same signs gives a positive number.

$-\frac{1}{4}\left(-\frac{7}{9}\right)=$ _____ (Type a simplifed fraction.)

*9. Add: $20+5+(-6)$

$20+5+(-6)$

$25+(-6) = 19$

$20+5+(-6)=$ 19

*10. Multiply.

$-5(-1)(-5)$

$5(-5)$

-25

$-5(-1)(-5)=$ -25

11. Multiply.

$-5 \cdot 4$

$-5 \cdot 4 =$ −20

*12. Divide.

$\frac{180}{-20}$

20 | 180 → 90

Select the correct choice below and fill in any answer boxes in your choice.

○ A. $\frac{180}{-20} =$ −9

○ B. The answer is undefined.

13. Evaluate the expression when x = 3.

$4x - 8$

$4(3) - 8$

$12 - 8$

4

The value of $4x - 8$ when $x = 3$ is 4.

14. Simplify the expression by combining like terms. same variable with the same exponent

$5y + 3y$

$5y + 3y =$ 8y

15. Simplify the expression by combining any like terms.

$7w - 2w + 8w$

$7w - 2w + 8w =$ 13w

$5w + 8w$

$13w$

16. Simplify the expression by combining any like terms.

$5b - 5 - 11b - 7$

$5b - 5 - 11b - 7 =$ −6b −12

$5b - 5 - 11b - 7$

$-6b - 5 - 7 = -6b - 12$

17. Simplify the expression by combining any like terms.

$m - m - 8m - 9$ →

$m - m - 8m - 9 =$ −8m −9

$1m - 1m - 8m - 9$

$0 - 8m - 9$

18. Simplify the expression by combining any like terms.

$6g - 3 - 6 - 6g$

$6g - 3 - 6 - 6g =$ −9

$6g - 3 - 6 - 6g$ 6g and −6g cancels out

$-3 - 6 = -9$

19. Simplify the expression. First, use the distributive property to remove any parentheses.

$8(x + 8)$

multiply

$8x + 64$

$8(x + 8) =$ 8x+64

20. Multiply. Distribute

$-3(2n+8)$ $-6n-24$

$-3(2n+8) =$ $-6n-24$

21. Simplify the expression.

$(2+5)(5+4)$ $(2+5)(5+4)$ $(7)(9)$ 63

$(2+5)(5+4) =$ 63

*22. Simplify.

$\frac{8(5-1)+4}{4^2-4}$ $\frac{8(5-1)+4}{16-4} = \frac{8(4)+4}{12} = \frac{32+4}{12} = \frac{36}{12} = 3$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

● A. $\frac{8(5-1)+4}{4^2-4} =$ 3

○ B. The expression is undefined.

*23. Simplify.

$3+0+27$ $\frac{3}{0}+27$ undefined

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ A. $3 \div 0 + 27 =$

● B. The expression is undefined.

*24. Simplify.

$2^4 \cdot 3 - (90 \div 10)$ $16 \cdot 3 - (9)$ $48 - 9 = 39$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

● A. $2^4 \cdot 3 - (90 \div 10) =$ 39

○ B. The expression is undefined.

*25. Simplify.

$\frac{2+7^2}{5(19-15)-3^2-8}$ $\frac{2+49}{5(4)-9-8} = \frac{51}{20-9-8} = \frac{51}{11-8} = \frac{51}{3} = 17$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

● A. $\frac{2+7^2}{5(19-15)-3^2-8} =$ 17

○ B. The expression is undefined.

Combine like terms.

*26. Add the polynomials.

$(-6z^2-9z+9)+(-4z^2+2z+9)$

$-6z^2+-4z^2 \quad -9z+2z \quad +9+9$

$-10z^2 \quad -7z \quad +18$

$(-6z^2-9z+9)+(-4z^2+2z+9)=$ $\boxed{-10z^2-7z+18}$

27. Simplify the given expression.

$\frac{8}{9}\cdot\frac{8}{9}-\frac{1}{8}$

$\frac{8}{9}\cdot\frac{8}{9}-\frac{1}{8}$ $\quad 8\cdot\frac{64}{8\cdot 81}-\frac{1}{8}\cdot\frac{81}{81}$ Get a common denom

$\frac{8}{9}\cdot\frac{8}{9}-\frac{1}{8}=$ $\boxed{\frac{431}{648}}$ (Type an integer or a fraction. Simplify your answer.) $\quad \frac{512}{648}-\frac{81}{648}=\frac{431}{648}$

28. Simplify the given expression and enter the answer in numerical terms.

$5[6+5(4-2)]$

$5[6+5(2)]$

$5[6+10]=5(16)=80$

$5[6+5(4-2)]=$ $\boxed{80}$

29. Simplify the given expression and enter your answer in numerical terms.

$\frac{6+|6-4|+2^2}{4-2}$

$\frac{6+2+4}{2}=\frac{8+4}{2}=\frac{12}{2}=6$

$\frac{6+|6-4|+2^2}{4-2}=$ $\boxed{6}$ (Type an integer or a fraction. Simplify your answer.)

30. Solve the equation for r.

$r+1.1=9.8$

$r+1.1=9.8$
$-1.1 \quad -1.1$

$r=$ $\boxed{8.7}$ (Type a decimal.)

$r=8.7$

31. Solve the equation for x.

$6x+8=7x$

$6x+8=7x$
$-6x \quad -6x$

$x=$ $\boxed{8}$

$8=x$

32. Solve the equation. Check the solution.

$7z-6=7z-z$

$7z-6=7z-1z$
$7z-6=6z$
$-7z \quad -7z$

$z=$ $\boxed{6}$

33. Solve the equation for x.

Distribute

$8(x-8)+5=-59$

$\frac{-6}{-1}=\frac{-1z}{-1}$ $\quad z=6$

$x=$ $\boxed{0}$ (Type an integer or a fraction. Simplify your answer.)

$8x-64+5=-59$

$8x-59=-59$
$+59 \quad +59$

$\frac{8x}{8}=\frac{0}{8}$

$x=0$

34. Graph the equation.

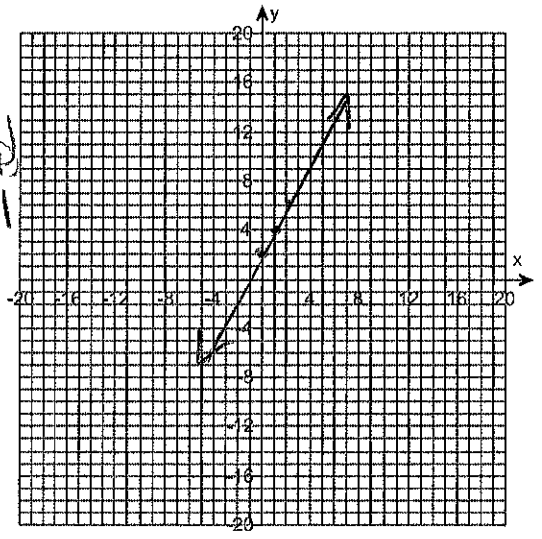
$y = 2x + 2$

Use the graphing tool to graph the line.

y = mx + b

slope = 2 → from the y-intercept go up 2 and right 1

y-intercept = 2 ↑ plot this first at (0, 2).



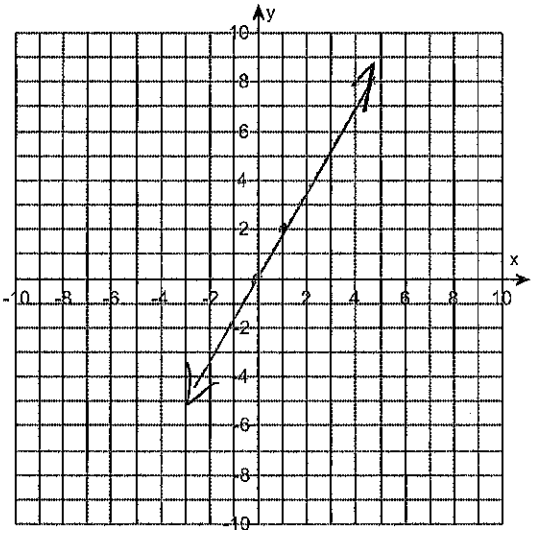
35. Graph the linear equation.

$y = 2x$

Use the graphing tool to graph the linear equation.

slope = 2

y-intercept = 0



36. Graph the linear equation.

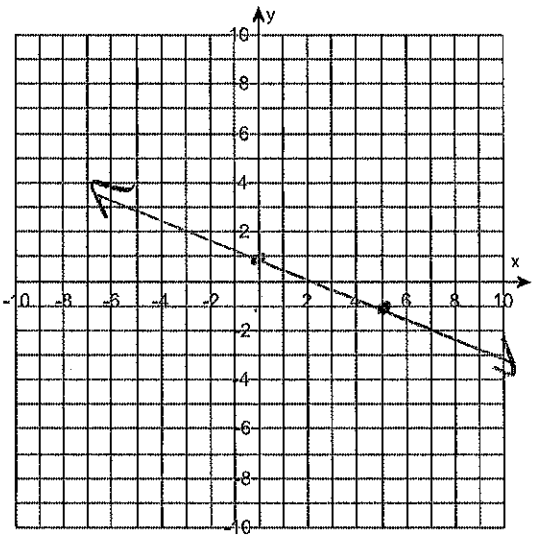
slope: $-\frac{2}{5}$ ← y-int: 1

$y = -\frac{2}{5}x + 1$

Use the graphing tool to graph the linear equation.

slope = $-\frac{2}{5}$ → down 2 → right 5

y-int = 1



37. Simplify the given polynomial by combining like terms.

$5x^2 - 3x^2 - y$

$5x^2 - 3x^2 - y =$ $2x^2 - y$

$5x^2 - 3x^2 - y$

$2x^2 - y$

38. Simplify the polynomial by combining like terms.

$9x - 8x + 5x$

$9x - 8x + 5x =$ $6x$ (Simplify your answer.)

$9x - 8x + 5x$

$x + 5x$

$6x$

*39. Add the polynomials.

$(9x + 3) + (-x - 28)$

$(9x + 3) + (-x - 28) =$ $8x - 25$

$9x + 3 - x - 28$

$8x - 25$

*40. Subtract the polynomials.

$(3a - 6) - (a + 9)$

$(3a - 6) - (a + 9) =$ $2a - 15$

$3a - 6 - a - 9$

$2a - 15$

*41. Multiply.

$(2ab)(4a^9b^3)$

$(2ab)(4a^9b^3) =$ $8a^{10}b^4$

when multiplying, add exponents.

$8a^{1+9}b^{1+3} = 8a^{10}b^4$

*42. Multiply.

$4r(-8r + 2)$

$4r(-8r + 2) =$ $-32r^2 + 8r$

(Simplify your answer.)

Distribute

$4r(-8r + 2) = -32r^2 + 8r$

*43. Factor.

$9x^3 + 27x^2 + 45x$

$9x^3 + 27x^2 + 45x =$ ____ → $9x(x^2 + 3x + 5)$

Factor the GCF.

GCF $9x$

*44. Factor.

$z^5 - 2z^3$

$z^5 - 2z^3 =$ ____

GCF z^3

$z^3(z^2 - 2)$

*45. Solve the equation.

$20 - 6x = 12 + 2x$

$x =$ 1

$20 - 6x = 12 + 2x$

$+6x \quad +6x$

$20 = 12 + 8x$

$-12 \quad -12$

$\frac{8}{8} = \frac{8x}{8}$

$1 = x$

*46. Solve the equation.

$24 + 8(z - 3) = 7z + 4$

$24 + 8z - 24 = 7z + 4$ ← cancels out

$8z = 7z + 4$

$-7z \quad -7z$

$z = 4$

$z =$ 4

*47. Translate the following sentence into an equation. Then solve the equation.

Five times a number, added to 9, is 44. Find the number.

$5x + 9 = 44$

Translate the sentence into an equation.

$5x + 9 = 44$ (Type an equation using x as the variable. Do not simplify.)

$5x + 9 = 44$

$-9 \quad -9$

$\frac{5x}{5} = \frac{35}{5}$ $x = 7$

The unknown number is 7.

*48. Use the quotient rule for exponents to simplify.

When dividing, subtract exponents.

$\frac{a^{16}}{a^6}$ $a^{16-6} = a^{10}$

$\frac{a^{16}}{a^6} =$ a^{10}

(Type your answer using exponential notation. Use positive exponents only.)

*49. Evaluate the expression.

$(-7)^0$

$(-7)^0 =$ 1

*50. Simplify. Use positive exponents for any variables. Assume that all bases are not equal to 0.

$3x^{-4}$

When there are negative exponents, move that number or variable to the other side of the fraction to make the exponent positive.

$3x^{-4} =$ $\frac{3}{x^4}$ (Simplify your answer.)

$3x^{-4} = \frac{3}{x^4}$