

Math Summer Practice

- 1) These problems are to be used to keep students sharp over the summer on skills they will need next year when they enter Geometry or Algebra.
- 2) Students should be familiar with the concepts covered in the practice problems.
- 3) Students should complete practice WITHOUT a CALCULATOR.
- 4) The HELP and PRACTICE links are meant to be used on a computer. Students can click on the underlined link and will be directed to website for assistance and additional practice problems on the specific topic. The HELP links are video explanations, while the PRACTICE links give students endless practice problems where they can type in their answers and get immediate feedback.
- 5) The OTHER USEFUL LINKS are websites where students can REPEAT practice. Students should be proficient in their Multiplication tables; Perfect Squares; and Mental Math Calculations. This section should be done daily if possible.
- 6) Students and Parents with Internet access should become familiar with these websites:
 - a. [KhanAcademy.com](https://www.khanacademy.com) (Smart Phone App Available)
 - b. [YouTube.com](https://www.youtube.com) (Smart Phone App Available)
 - c. [KutaSoftware.com](https://www.kutasoftware.com)
 - d. [IXL.com](https://www.ixl.com)
 - e. [PurpleMath.com/modules/index.htm](https://www.purplemath.com/modules/index.htm)
- 7) Practice is essential for success in math at any level. Try to focus on one section per week.

Have a Great Summer!

Section A: Addition/Subtraction of Integers

- 1) $180 + (-21)$
- 2) $360 - (100 + 48 - 25)$
- 3) $360 - 49 - 121$
- 4) $180 - 81 - 16$
- 5) $180 - (36 + 101)$

Help: [Khan Academy: Adding and Subtracting](#)

Practice: [Khan Academy: Adding/Subtracting Integers](#)

Section B: Solving for X

- 6) $45 + 25 + x = 180$
- 7) $360 = 135 + 43 + x + 128$
- 8) $x + x + x = 90$
- 9) $x + 30 + 2x + 20 + 2x = 180$
- 10) $(3x - 20) + (4x + 50) + (3x + 70) = 360$

Help: [YouTube: Combine Like Terms and Solve for X](#)

Practice: [Khan Academy Two Step Equations](#)

Section C: Multiplying/Dividing Decimals

(Round to nearest tenth)

- 11) $3(0.138)$
- 12) $0.405 \div 6$
- 13) $0.777 = \frac{x}{4}$
- 14) $3 = \frac{0.501}{x}$
- 15) $7 = \frac{0.201}{x}$

Help: [YouTube: Multiply and Divide Decimals](#)

Practice: [Khan Academy Multiply Decimals](#)

[Khan Academy Divide Decimals](#)

Section D: Fractions Equal to Fractions (Proportions)

- 16) $\frac{3}{5} = \frac{x}{15}$
- 17) $\frac{4}{13} = \frac{12}{x}$
- 18) $\frac{92}{x} = \frac{46}{41}$
- 19) $\frac{7}{x} = \frac{21}{36}$
- 20) $\frac{x}{11} = \frac{44}{121}$

Help: [YouTube Solving Proportions](#)

Practice: [Khan Academy Solving Proportions](#)

Section E: Find the distance between these points.

- 21) $(-2,1)$ and $(1,5)$
- 22) $(-3,4)$ and $(5,4)$
- 23) $(-4,-5)$ and $(1,-2)$
- 24) $(5,4)$ and $(3,2)$
- 25) $(3,-2)$ and $(11,4)$

Help: [Khan Academy Distance Formula](#)

Practice: [Purple Math Distance Formula](#)

Section F: Find the midpoint between these points.

- 26) $(5,1)$ and $(-1,5)$
- 27) $(-1,-1)$ and $(-5,-5)$
- 28) $(-4,2)$ and $(2,2)$
- 29) $(-4,-1)$ and $(5,3)$
- 30) $(-10,-3)$ and $(-2,3)$

Help: [Khan Academy Midpoint Video](#)

Practice: [Khan Academy Midpoint Formula](#)

[IXL Midpoint Practice](#)

Section G: Simplifying Radicals

- 31) $\sqrt{8}$
- 32) $\sqrt{20}$
- 33) $\sqrt{32}$
- 34) $\sqrt{75}$
- 35) $\sqrt{40}$

Help: [YouTube Simplifying Radicals](#)

[Khan Academy Video Radicals](#)

Practice: [Khan Academy Radicals](#)

[IXL Simplifying Radicals](#)

Section H: Solving Equations with variables on both sides

- 36) $8x - 2 = -9 + 7x$
- 37) $x + 5 = -5x + 5$
- 38) $5x - 14 = 8x + 4$
- 39) $x - 1 = 5x + 3x - 8$
- 40) $2x + 3x + 10 = 55 - 6x - 4x$

Help: [Khan Academy Variables on both Sides](#)

Practice: [Khan Academy Practice with Variables on both Sides](#)

Section I: Solving Equations using Distributive Property

- 41) $2(4x - 3) - 8 = 4 + 2x$
- 42) $-(1 + 7x) - 6(-7 - x) = 36$
- 43) $-3(4x + 3) + 4(6x + 1) = 43$
- 44) $-18 - 6x = 6(1 + 3x)$
- 45) $-5(1 - 5x) + 5(-8x - 2) = -4x - 8x$

Help: [Khan Academy Equations with Distributive Property](#)

Practice: [Khan Academy Distribution Equations](#)

Other Useful Links

- I. [Multiplication Timed Tests](#)
- II. [Practice What You Need](#)
- III. [Know Your Perfect Squares](#)
- IV. [Identifying 3 Dimensional Figures](#)
- V. [Order of Operations](#)
- VI. [Timed Mental Math Practice](#)

ANSWERS

Section A: Addition/Subtraction of Integers

- 1) 159
- 2) 237
- 3) 190
- 4) 83
- 5) 43

Help: [Khan Academy: Adding and Subtracting](#)

Practice: [Khan Academy: Adding/Subtracting Integers](#)

Section B: Solving for X

- 6) $x = 110$
- 7) $x = 54$
- 8) $x = 30$
- 9) $x = 26$
- 10) $x = 26$

Help: [YouTube: Combine Like Terms and Solve for X](#)

Practice: [Khan Academy Two Step Equations](#)

Section C: Multiplying/Dividing Decimals

(Round to nearest hundredth)

- 11) 0.41
- 12) 0.07
- 13) 3.11
- 14) 0.17
- 15) 0.03

Help: [YouTube: Multiply and Divide Decimals](#)

Practice: [Khan Academy Multiply Decimals](#)

[Khan Academy Divide Decimals](#)

Section D: Fractions Equal to Fractions (Proportions)

- 16) $x=9$
- 17) $x = 39$
- 18) $x=82$
- 19) $x=12$
- 20) $x = 4$

Help: [YouTube Solving Proportions](#)

Practice: [Khan Academy Solving Proportions](#)

Section E: Find the distance between these points.

- 21) 5
- 22) 8
- 23) $\sqrt{34}$
- 24) $\sqrt{8}$
- 25) 10

Help: [Khan Academy Distance Formula](#)

Practice: [Purple Math Distance Formula](#)

Section F: Find the midpoint between these points.

- 26) (2,3)
- 27) (-3,-3)
- 28) (-1,2)
- 29) $(\frac{1}{2},1)$
- 30) (-6,0)

Help: [Khan Academy Midpoint Video](#)

Practice: [Khan Academy Midpoint Formula](#)
[IXL Midpoint Practice](#)

Section G: Simplifying Radicals

- 31) $2\sqrt{2}$
- 32) $2\sqrt{5}$
- 33) $4\sqrt{2}$
- 34) $5\sqrt{3}$
- 35) $2\sqrt{10}$

Help: [YouTube Simplifying Radicals](#)

[Khan Academy Video Radicals](#)

Practice: [Khan Academy Radicals](#)
[IXL Simplifying Radicals](#)

Section H: Solving Equations with variables on both sides

- 36) -7
- 37) 0
- 38) -6
- 39) 1
- 40) 3

Help: [Khan Academy Variables on both Sides](#)

Practice: [Khan Academy Practice with Variables on both Sides](#)

Section I: Solving Equations using Distributive Property

- 41) 3
- 42) 5
- 43) 4
- 44) -1
- 45) -5

Help: [Khan Academy Equations with Distributive Property](#)

Practice: [Khan Academy Distribution Equations](#)

Other Useful Links

- I. [Multiplication Timed Tests](#)
- II. [Practice What You Need](#)
- III. [Know Your Perfect Squares](#)
- IV. [Identifying 3 Dimensional Figures](#)
- V. [Order of Operations](#)
- VI. [Timed Mental Math Practice](#)