

Advanced Pre-Algebra (7th Grade) OPTIONAL

Summer Review

Congratulations on being accepted into the Advanced Pre-Algebra math program in Carroll ISD! Next year will be an exciting and challenging year as you take Advanced Pre-Algebra. Advanced Pre-Algebra teaches only the 8th grade Math TEKS. Please know this summer review includes Math 6 and Math 7 concepts.

The concepts on this optional summer review are needed to be successful throughout Advanced Pre-Algebra next year. You can work through this review to help provide good insight to specific strengths and weaknesses before school begins. Additional websites are provided to help support each concept. In addition, the answers to each of the questions are provided at the end of the review so you can check your work. If you choose to work the optional summer review, **please do not use a calculator**.

The optional summer review will NOT be counted as a grade OR for extra credit, as it is optional! However, many students want to make sure they are ready for their first advanced math class, so the summer review is provided.

We look forward to meeting you on the first day of school!!! Have a wonderful and FUN summer!!

Sincerely,
Advanced Pre-Algebra Team

TEKS for this assignment	5.3L, 5.4B, 6.3D, 6.5C, 6.7C, 7.11A
Approximate time necessary for this assignment	90 minutes

Section 1: Adding and Subtracting Integers

Use these links to see examples of adding & subtracting integers.

- <http://bit.ly/1gKBN62> (adding integers with same sign)
- <http://bit.ly/1hwMZF2> (adding integers with different signs)
- <http://bit.ly/1eFwjwx> (adding & subtracting integers)

Here is a link to some online practice.

- <http://bit.ly/Ozidmt> (adding negative numbers)
- <http://bit.ly/1psCZj4> (adding & subtracting negative numbers)

Practice problems:

1. $4 + (-3) - (-2)$

4. $-6.5 - (-9.4)$

2. $-15 - 5 + 3$

5. $3.5 - 9$

3. $-4.5 - 1.2$

6. $1.7 - (-3.2)$

Section 2: Multiplying and Dividing Integers

Use these links to see examples of multiplying & dividing integers.

- <http://bit.ly/1iUOWhl> (multiplying integers)
- <http://bit.ly/1psDvNZ> (dividing integers)

Here is a link to online practice.

- <http://bit.ly/1giRaqq> (multiplying and dividing integers)

Practice Problems:

7. $4(-3)(-2)$

8. $(-4.7)(18.2)$

9. $(-1.1)(-3)(-2)$

14. $(-0.7)^2 \times (-1.6)$

10. $\frac{-195}{13}$

15. $(-4.2)^2 \div (-2)$

11. $(-1.4)^2$

16. $3.3 + [(-6) + 2.3]$

12. $-55.2 \div -2.3$

17. $3(2.8) - 7(3.6)$

13. $(\frac{-575}{23}) \times 11$

18. $\frac{(-16.4+3.2)}{-2}$

Section 3: Adding and Subtracting Fractions

Use these links to see examples on adding & subtracting fractions (may include negatives).

- <http://bit.ly/1gRXKzs> (adding & subtracting fractions)
- <http://bit.ly/Q7V23W> (adding/subtracting three fractions)

Here is a link to online practice.

- <http://bit.ly/1mqB0P5> (adding & subtracting fractions)

Practice Problems:

19. $\frac{3}{4} + \frac{2}{3}$

20. $2\frac{1}{2} - 5$

$$21. 3\frac{2}{3} + (-\frac{1}{5}) - \frac{1}{3}$$

$$23. \frac{1}{3} - 5.4$$

$$22. 5\frac{5}{6} - 3\frac{1}{4}$$

$$24. \frac{6}{7} - 1\frac{1}{4}$$

Section 4: Multiplying and Dividing Fractions

Use these links to see examples on multiplying & dividing fractions.

- <http://bit.ly/1nUkQ27> (multiply fractions)
- <http://bit.ly/1oV8eoG> (dividing fractions)

Here is a link to online practice.

- <http://bit.ly/1iUYj0x> (multiplying fractions)
- <http://bit.ly/1fUWhlv> (dividing fractions)

Practice Problems:

$$25. \frac{6}{7} (-\frac{15}{16})$$

$$28. (-\frac{6}{25}) \div 4$$

$$26. 5\frac{3}{4} (10\frac{2}{3})$$

$$29. (3 - 2\frac{3}{16}) \div \frac{5}{8}$$

$$27. -9 \div (-4\frac{2}{3})$$

$$30. (\frac{5}{8} + 2\frac{3}{16}) \div (-3)$$

Section 5: Fraction/Decimal Conversions

Use these links to see examples of fraction/decimal conversions.

- <http://bit.ly/1nUnN2O> (writing fractions as decimals)
- <http://bit.ly/1gurKAO> (converting fractions to decimals)
- <http://bit.ly/1mqEMrJ> (adding with fractions, decimals and percentages)

Here is a link to online practice.

- <http://bit.ly/1iuLQzV> (rational numbers)

Practice Problems:

$$31. 1.3 + \frac{2}{3}$$

$$34. -0.5 \div \frac{3}{4}$$

$$32. 1.8(-2\frac{1}{4})$$

$$35. \frac{2}{3} - 1.125$$

$$33. 150\% + 1.8$$

$$36. (-2.3)(-1\frac{1}{4})$$

Section 6: Simple Equations

Use these links to see examples on solving simple equations.

- <http://bit.ly/1iuMddM> (doing the same thing to both sides)
- <http://bit.ly/1jng0Zi> (adding/subtracting equations)
- <http://bit.ly/1guuDYN> (multiplication equations)

Here is a link to online practice.

- <http://bit.ly/1hgDb0z> (one-step with multiplication)
- <http://bit.ly/1nUrBkx> (one-step equations)

Practice Problems:

$$37. x + 5 = 21$$

$$38. 3x = -21$$

$$39. x - 2 = 1.4$$

$$43. 2\frac{1}{3} + x = 1.5$$

$$40. 5 + x = -74$$

$$44. \frac{x}{6} = -1.2$$

$$41. 1.5x = 45$$

$$45. 2\frac{1}{4}x = \frac{8}{9}$$

$$42. \frac{x}{3} = -\frac{4}{7}$$

Section 7: Combining Like Terms

Use these links to see examples of combining like terms (simplifying expressions).

- <http://bit.ly/1m5vKAF> (combining like terms)
- <http://bit.ly/1imlj8Q> (combining like terms)
- <http://bit.ly/1eLu2N5> (combining like terms with distribution)

Here is a link to online practice

- <http://bit.ly/1n9fizw> (combining like terms)
- <http://bit.ly/1gBV0uJ> (combining like terms with distribution)

Practice Problems:

$$46. 3x + 4x$$

$$48. 3(2x - 5y)$$

$$47. -5y + 9y - 3y$$

$$49. -2(x + 3y) + 5x$$

$$50. 15x + 7y - (-3y) - x$$

$$51. 4n + 5(-n + 3)$$

Section 8: Solving Multi-Step Equations

Use these links to see examples of solving multi-step equations.

- <http://bit.ly/1kXMeVb> (solve 2 step equations)
- <http://bit.ly/1kueLFT> (solve 2 step equations)
- <http://bit.ly/1gyOPUM> (solve 2 step equations)
- <http://bit.ly/1t5OBNA> (2-step equations)

Here is a link to online practice

- <http://bit.ly/1t5OBNA> (2-step equations)

Practice Problems:

$$52. 2x - 5 = 11$$

$$56. 4(2x + 7) = -108$$

$$53. -3x - 4 = 8$$

$$57. 0.5x + 4 = 14$$

$$54. \frac{x}{3} + 10 = 15$$

$$58. \frac{x+5}{2} = 10$$

$$55. \frac{x}{2} + 15 = 17$$

$$59. -6(7x - 8) = 12$$

$$60. 3x + 22 = -16$$

$$62. -x + 6 = -7$$

$$61. 5 - x = 3.5$$

$$63. 19 - \frac{x}{2} = 34$$

KEY

Adding and Subtracting Integers

1. 3
2. -17
3. -5.7
4. 2.9
5. -5.5
6. 4.9

Multiplying and Dividing Integers

7. 24
8. -85.54
9. -6.6
10. -15
11. 1.96
12. 24
13. -275
14. -0.784
15. -8.82
16. -0.4
17. -16.8
18. 6.6

Adding and Subtracting Fractions

19. $17/12$
20. $-5/2$
21. $47/15$
22. $31/12$
23. $-76/15$
24. $-11/28$

Multiplying and Dividing Fractions

25. $-45/56$
26. $184/3$
27. $27/14$
28. $-3/50$
29. $13/10$
30. $-15/16$

Fraction/Decimal Conversion

31. $59/30$
32. $-81/20$ or -4.05
33. 3.3

34. $-2/3$
35. $-11/24$
36. $23/8$ or 2.875

Simple Equations

37. $x=16$
38. $x=-7$
39. $x=3.4$
40. $x=-79$
41. $x=30$
42. $x=-12/7$
43. $x=-5/6$
44. $x=-7.2$
45. $x=32/81$

Combining Like Terms

46. $7x$
47. Y
48. $6x-15y$
49. $3x-6y$
50. $14x+10y$
51. $-n+15$

Multi-Step Equations

52. $x=8$
53. $x=-4$
54. $x=15$
55. $x=4$
56. $x=-17$
57. $x=20$
58. $x=15$
59. $x=6/7$
60. $x=-38/3$
61. $x=1.5$
62. $x=13$
63. $x=-30$

