

Aniya has a scale model of Olmsted. **Folder and calculator**

- The model is 25 inches tall.
- The scale of the model to the actual statue is 1 inch : 7.5 meters.

Which equation can Aniya use to determine x , the height in meters, of Olmsted?

A. $25x = 7.5$

C. $7.5x = 25$

B. $\frac{1}{7.5} = \frac{25}{x}$

D. $\frac{1}{7.5} = \frac{x}{25}$

A farm grew 16.4 tons of corn in 2017. The farm's corn output increased by 11.7% from 2017 to 2018 and by 3.1% from 2018 to 2019. Which expression represents a strategy for estimating the total output of corn, in tons, in 2019?

$\uparrow \frac{12.6}{100\%} + 12\% = \frac{112\%}{1.12}$

A. $20(1.12)(1.03)$

C. $16 + 1.12 + 1.03$

~~B. $16(12)(3)$~~

~~D. $16 + 12 + 3$~~

Done in groups

Name: _____

Date: _____

7.NS.1a

- _____ 1. Altitude above sea level is given in positive values and below sea level is given in negative values. Which situation describes a hiker in Death Valley stopping at an altitude of 0 feet? (2015)
- A. The hiker starts at -10 feet then increases altitude by 10 feet.
 - B. The hiker starts at -10 feet then decreases altitude by 10 feet.
 - C. The hiker starts at 10 feet then increases altitude by 10 feet.
 - D. The hiker starts at 0 feet then decreases altitude by 10 feet.
- _____ 2. The initial balance of a savings account was \$275. After which transactions will the balance of the savings account be the same as the initial balance. (2017) no calculator
- A. a withdrawal of \$232 followed by a deposit of \$132
 - B. a deposit of \$278 followed by a withdrawal of \$278
 - C. a withdrawal of \$115 followed by a deposit of \$312
 - D. a deposit of \$205 followed by a withdrawal of \$317
- _____ 3. Which situation results in a final value of zero? (2018)
- A. The temperature after a decrease of 5°F from a temperature of -5°F .
 - B. The height of an airplane after taking off from ground level and rising 1,000 feet.
 - C. The amount of money received in change after making a \$10 purchase with a \$20 bill.
 - D. The distance above sea level after increasing 24 meters from a depth of 24 meters below seas level.

7.NS.1b

- _____ 1. Point P is shown on the number line below. (2017) no calculator



The distance between point Q and point P is $6\frac{1}{2}$ units. Which number could represent point Q?

- A. $-9\frac{1}{2}$
 - B. $1\frac{1}{2}$
 - C. $2\frac{1}{2}$
 - D. $10\frac{1}{2}$
- ### 7.NS.1c
- _____ 1. Which expression is equivalent to $4 - (-7)$? (2016)
- A. $7 + 4$
 - B. $4 - 7$
 - C. $-7 - 4$
 - D. $-4 + 7$
- _____ 2. Which expression has the same value as $59.2 - 84.7$? (2017) no calculator
- A. $84.7 - 59.2$
 - B. $-84.7 + (-59.2)$
 - C. $59.2 - (-84.7)$
 - D. $59.2 + (-84.7)$

____ 3. At midnight, the temperature was -8°F . At noon, the temperature was 23°F . which expression represents the increase in the temperature? (2018)

- A. $-8 - 23$ B. $|-8| - 23$ C. $-8 - |23|$ D. $|-8 - 23|$

7.NS.1d

____ 1. What is the value of the expression below? (2013)

$$\frac{3}{8} + \left(-\frac{4}{5}\right) + \left(-\frac{3}{8}\right) + \frac{5}{4}$$

- A. 0 B. $\frac{1}{20}$ C. $\frac{9}{20}$ D. $2\frac{4}{5}$

____ 2. Yesterday, the temperature at noon was 11.4°F . By midnight, the temperature had decreased by 15.7 degrees. What was the temperature at midnight? (2015)

- A. -4.3°F B. -11.4°F C. -15.7°F D. -27.1°F

____ 3. What is the value of the expression below? (2016) (no calculator)

$$-0.75 - \left(-\frac{2}{5}\right) + 0.4 + \left(-\frac{3}{4}\right)$$

- A. -1.5 B. -0.7 C. 0.8 D. 2.3

____ 4. Which expression can go in the blank to make the equation true? (2018)

$$-4.5 + 4.4 + \underline{\quad?} = 0$$

- A. $-6.7 + 6.8$ B. $-6.7 + (-6.6)$ C. $7.2 + (-7.2)$ D. $7.2 + (-7.3)$

5. Graham's monthly bank statement showed the following deposits and withdrawals:

$$-\$25.20, \$52.75, -\$22.04, -\$8.50, \$94.11$$

If Graham's balance in the account was $\$47.86$ at the beginning of the month, what was the account balance at the end of the month? (2014)

Show your work.

Answer \$ _____

Lesson 2: Addition and Subtraction of Rational Numbers

CCSS: 7.NS.1.a, 7.NS.1.b, 7.NS.1.c, 7.NS.3

Directions: For questions 5 through 24, compute. Write answers in simplest form.

5. $-12 + 19$ _____

6. $-0.7 + 2.1$ _____

7. $\frac{-5}{9} + (\frac{-2}{9})$ _____

8. $\frac{11}{12} + (\frac{-11}{12})$ _____

9. $3.6 + (-1.7)$ _____

10. $-4.5 + (-9.6)$ _____

11. $-26.3 + 26.3$ _____

12. $\frac{7}{8} + (\frac{-3}{4})$ _____

13. $-15 - (-8)$ _____

14. $\frac{2}{3} - (\frac{-1}{3})$ _____

15. $4\frac{4}{5} + 3\frac{2}{5}$ _____

16. $\frac{19}{20} - \frac{1}{2}$ _____

17. $11\frac{8}{9} - 6\frac{2}{9}$ _____

18. $33.07 - 17.54$ _____

19. $6\frac{1}{3} - 4\frac{5}{6}$ _____

20. $-49 - (-49)$ _____

21. $4\frac{7}{8} + 9\frac{1}{3}$ _____

22. $-15.8 - 15.8$ _____

23. $8\frac{3}{4} - 10\frac{2}{3}$ _____

24. $-4.85 - 7.6$ _____

Unit 1 – The Number System

CCSS: 7.NS.1.a, 7.NS.1.b, 7.NS.1.c, 7.NS.3

25. Henry has \$75 in his bank account. If he withdraws \$75 from the account, how much money will be left in the account?

26. A movie is advertised to last for $2\frac{1}{3}$ hours. Of this time, $\frac{1}{4}$ hour is used for showing previews. How long is the actual movie?

27. Lily finished her first lap of a 200-meter race in 14.76 seconds and her second lap in 15.17 seconds. What was her total time for the two laps?

28. On a cold winter day, the low temperature was 10°F . Due to the wind chill, it felt like -18°F . What was the difference between the actual temperature and the wind chill temperature?

29. Last night Jeremy studied $\frac{5}{6}$ hour for his math test and $\frac{1}{4}$ hour for his spelling test. How long did Jeremy study altogether for the two tests?

30. In a race at the track meet, Rosa finished in 7.5 minutes and Chad finished in 8.25 minutes. How much more time did it take Chad to finish the race than Rosa?
