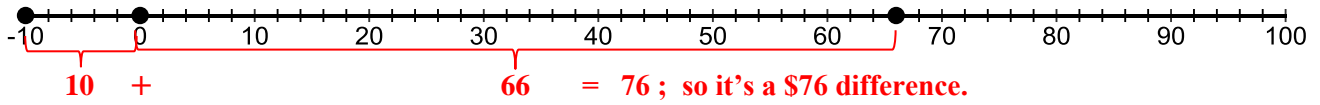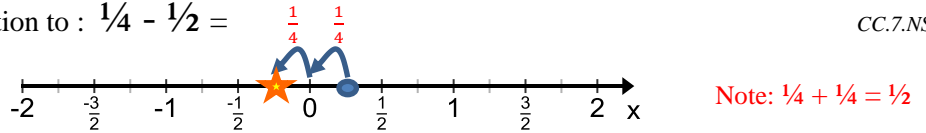Study Guide 7th Grade
Study Guide 7ᵗʰ Grade
Unit 1b Common Assessment
Troup County Schools

1. What is the difference between a bank account balance of -$10 and a bank account with $66? *CC.7.NS.1*
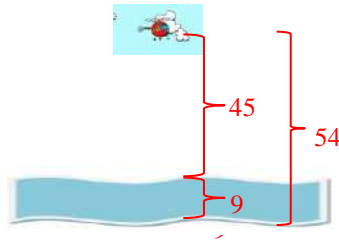

10 + **66** = **76 ; so it's a $76 difference.**

2. You get 11 miles per gallon of gas in your truck. How many gallons will it take for you to drive 398.2 miles? *CC7.NS.1*

398.2 ÷ 11 = 36.2 gallons

3. Draw a number line with the solution to : **¼ - ½ =** $\frac{1}{4}$ $\frac{1}{4}$ *CC.7.NS.1*

Note: ¼ + ¼ = ½

4. How many ¾ cups are in 15 cups? $15 \div \frac{3}{4} = \frac{15}{1} \cdot \frac{4}{3} = \frac{60}{3} = 20$; *So there are* **20** *of the* $\frac{3}{4}$ *cups in* **15** *cups.* *CC7.NS.1*

5. A rock fell from a helicopter that was 45 feet in the air over the ocean. The rock landed 9 feet under water. How far did it fall all together?   **Draw a picture!! It fell 54 feet.** *CC.7.NS.1*
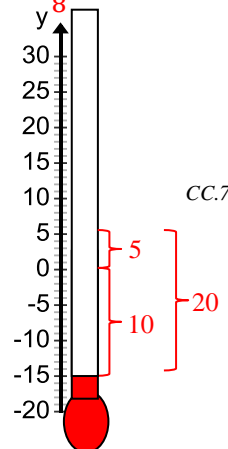

6. Evaluate. $-\frac{3}{5} + \frac{1}{6} = -\frac{18}{30} + \frac{5}{30} = -\frac{13}{30}$ *CC.7.NS.1*

7. Evaluate: $\frac{4(-10+14)}{-2}$ $\frac{4(4)}{-2} = \frac{16}{-2} = -8$ *CC.7.NS.2*

8. The numerical expression $\frac{1}{4}\left(8 - \frac{1}{2}\right)$ is equal to: $\frac{1}{4}\left(\frac{16}{2} - \frac{1}{2}\right) = \frac{1}{4} \cdot \frac{15}{2} = \frac{15}{8} = 1\frac{7}{8}$ *CC.7.NS.2*

9. The thermometer shows the temperature at the North Pole when Chris woke up this morning The temperature rose 20 degrees by noon. What was the temperature at noon? *CC.7.NS.1*

Temperature at noon was 5˚.

10. Choose the two in the box that are equivalent to $-\frac{6}{7}$.

CC.7.NS.2

   A. **I** and **II**

   B. **II** and **IV**

   C. **III** and **IV**

   D. **I** and **III**

> **I.** $\frac{6}{-7}$
>
> **II.** $\frac{-6}{7}$
>
> **III.** $\frac{-6}{-7} = \frac{6}{7}$ (neg. ÷ neg. = pos.)
>
> **IV.** $-(-\frac{6}{7}) = \frac{6}{7}$ (neg. ÷ neg. = pos.)

11. Find the solution to the equation: $\frac{-4(-5)+(-3)}{2} = \frac{20+(-3)}{2} = \frac{17}{2} = 8\frac{1}{2}$

CC.7.NS.2

12. Evaluate: $(-\frac{3}{5})(\frac{5}{8}) = -\frac{15}{40} = -\frac{3}{8}$

CC.7.NS.2

13. Convert $\frac{4}{5}$ to a decimal. **$4 \div 5 = 0.8$**

CC.7.NS.2

14. Convert $\frac{25}{4}$ to a decimal. **$25 \div 4 = 6\,¼$**

CC.7.NS.2

15. A tiny spider weighed 0.08 ounces. A large spider weighed 5 ounces. What is the difference between the weights of those 2 spiders? **$5 - 0.08 = 4.92$ oz.**

CC.7.NS.3

16. You have 9 math coins and each coin is worth -25 points. How many points is that all together?

CC.7.NS.3

      $-25 \cdot 9 = -225$ (*It's like 9 quarters.* ☺)

17. Find the solution. $\frac{12(-5)}{-3} = \frac{-60}{-3} = 20$ *(negative ÷ negative = positive)*

CC.7.NS.2

18. Amy knits $1\frac{1}{2}$ sweaters each week. If she's knitted 20 sweaters , which expression could be used to determine the number of weeks she worked?

CC.7.NS.1

   A. $20 - \frac{3}{2}$ B. $20 + \frac{3}{2}$ C. $20 \times \frac{3}{2}$ **D. $20 \div \frac{3}{2}$** *(Need to divide total # of sweaters by 1½)*

19. You buy 12 folders that cost $0.50 each and 3 pens that cost $0.75 each. It is tax free day, so you don't have to pay tax. How much change should you get back if you pay with a $20 bill?

CC.7.NS.1

   $.50 \cdot 12 = \$6.00$**   and   **$.75 \cdot 3 = 2.25$

   $6.00 + 2.25 = 8.25$

   $\$20.00 - 8.25 = \$11.75$