**GREEN**

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| 1) Nicole and her brother ate an afternoon snack of popcorn when they came home from the park. Nicole ate $\frac{1}{2}$ cup of popcorn and her brother ate $\frac{1}{4}$ cup of popcorn. If there were $2\frac{2}{3}$ cups of popcorn in the container before their snack, how many cups were left after they finished? | 2) The difference between the lengths of a paddle boat and a pier is $ -7\frac{3}{4} $feet. The pier is $ 18\frac{1}{2} $ feet long. How long is the paddle boat? |
| 3) Mark, Gary, and Jill are on a family cell phone plan. They estimate that they have 7 hours of talk time for a weekend. Mark talked on his cell phone 2$\frac{5}{6}$ hours over the weekend. Gary talked on his phone 1$\frac{9}{10}$ hours. Jill talked on her cell phone for 1.5 hours. Did they go over 7 hours? If not, how many minutes do they have left to talk? | 4) Kari has a total of $12\frac{3}{4}$ yards of string for her craft project. She cuts 4.7 yards of string on the first day. The next day she uses $3\frac{1}{5}$ yards of string. She needs 4¼ yards of string to finish her project. Will she have enough string? If so, how much will she have left over? If not, how much string does she need? |

**Simplify each expression.**

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| 4) $ \frac{9}{14}+\left(-\frac{2}{7}\right)$ | 5) $ 2\frac{5}{6}+\left(-\frac{8}{15}\right)$ | 6) $ 4+(-1\frac{2}{3})$ |
| 7) $ -\frac{1}{2}-\left(-\frac{5}{9}\right)$ | 8) $ -5-\frac{5}{3}$ | 9) $-8\frac{3}{8}-10\frac{1}{6}$ |
| 10) $ 2\frac{1}{6}—\frac{8}{3}+(-4\frac{7}{9})$ | 11) $ -\frac{12}{5}+\left|-\frac{13}{6}\right|+(-3\frac{2}{3})$ | 12) $ 2\frac{3}{10}+\left(-3\frac{2}{5}\right)-(-\frac{9}{10})$ |

13) Check how one student solve this problem. Is it correct? If not, describe and correct the error.

$$\frac{3}{4}-\frac{9}{2}=\frac{3-9}{4-2}=\frac{-6}{2}=-3$$

**EXTENSION**

**Write an equation and then solve using either fact families or inverse operations.**

14) The difference between the lengths of a paddle boat and a pier is $ -7\frac{3}{4} $feet. The pier is $ 18\frac{1}{2} $ feet long. How long is the paddle boat?

**Solve each equation using either fact families or inverse operations.**

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| 15)$ \frac{1}{2}=q+\frac{2}{3}$ | 16) $ p-3\frac{1}{6}=-2\frac{1}{2}$ |
| 17) $ -2\frac{1}{4}=r-\frac{4}{5}$ | 18)$ w+3\frac{3}{8}=1\frac{5}{6}$ |
| 19) $ 4\frac{2}{5}+k=-3\frac{2}{11}$ | 20) $q+\frac{5}{9}=\frac{1}{6}$ |

**YELLOW**

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| $$-\frac{7}{8}+\frac{1}{4}$$ | **2)**$$\frac{1}{3}-(-\frac{1}{3})$$ |
|  **3)**$$-6\frac{1}{3}+\frac{20}{3}$$ | **4)**$$-3\frac{1}{3}-\frac{5}{6}$$ |
|  **5)** $$-2+\frac{7}{10}$$ | **6)**$$4\frac{1}{2}-5\frac{1}{4}$$ |

**7)**

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| --- | --- |
| 1) Nicole and her brother ate an afternoon snack of popcorn when they came home from the park. Nicole ate $\frac{1}{2}$ cup of popcorn and her brother ate $\frac{1}{4}$ cup of popcorn. If there were $2\frac{2}{3}$ cups of popcorn in the container before their snack, how many cups were left after they finished? | 2) The difference between the lengths of a paddle boat and a pier is $ -7\frac{3}{4} $feet. The pier is $ 18\frac{1}{2} $ feet long. How long is the paddle boat? |
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**Simplify each expression.**

|  |  |  |
| --- | --- | --- |
| 4) $ \frac{9}{14}+\left(-\frac{2}{7}\right)$ | 5) $ 2\frac{5}{6}+\left(-\frac{8}{15}\right)$ | 6) $ 4+(-1\frac{2}{3})$ |
| 7) $ -\frac{1}{2}-\left(-\frac{5}{9}\right)$ | 8) $ -5-\frac{5}{3}$ | 9) $-8\frac{3}{8}-10\frac{1}{6}$ |
| 10) $ 2\frac{1}{6}—\frac{8}{3}+(-4\frac{7}{9})$ | 11) $ -\frac{12}{5}+\left|-\frac{13}{6}\right|+(-3\frac{2}{3})$ | 12) $ 2\frac{3}{10}+\left(-3\frac{2}{5}\right)-(-\frac{9}{10})$ |

13) Check how one student solve this problem. Is it correct? If not, describe and correct the error.

$$\frac{3}{4}-\frac{9}{2}=\frac{3-9}{4-2}=\frac{-6}{2}=-3$$

**RED**

|  |  |
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| $$-\frac{5}{8}+\frac{11}{12}$$Common Denominator: Yes or NoIf no,Multiples of 8: 8, 16, 24, 32, 40Multiples of 12: 12, 24, 36 LCD = \_\_\_\_\_\_\_Change Fraction:Simplify:   | **2)**$$\frac{1}{3}-(-\frac{1}{3})$$Common Denominator: Yes or NoIf no,Multiples of 3:Multiples of 3:  LCD = \_\_\_\_\_\_\_\_\_Change Fraction:Simplify: |
|  **3)**$$-\frac{7}{8}+\frac{1}{4}$$Common Denominator: Yes or NoIf no,Multiples of 4:Multiples of 8:  LCD = \_\_\_\_\_\_\_\_\_Change Fraction:Simplify: | **4)**$$-3\frac{1}{3}-\frac{5}{6}$$Common Denominator: Yes or NoIf no,Multiples of 3:Multiples of 6:  LCD = \_\_\_\_\_\_\_\_\_Change to Improper:Change Fraction:Simplify: |
|  **5)** $$-2+\frac{7}{10}$$Common Denominator: Yes or NoIf no,Multiples of 1 (because 2 = 2/1):Multiples of 10:  LCD = \_\_\_\_\_\_\_\_\_Change Fraction:Simplify: | **6)**$$4\frac{1}{2}-5\frac{1}{4}$$Common Denominator: Yes or NoIf no,Multiples of 2:Multiples of 4:  LCD = \_\_\_\_\_\_\_\_\_Change to Improper:Change Fraction:Simplify: |

**7) 8)**

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**9) 10)**