Ace Your Math Test Reproducible Worksheets

These worksheets practice math concepts explained in Addition and Subtraction (ISBN: 978-0-7660-3778-6), written by Rebecca Wingard–Nelson.

Ace Your Math Test reproducible worksheets are designed to help teachers, parents, and tutors use the books from the Ace Your Math Test series in the classroom and the home. The answers to the problems are contained in the Answers section starting on page 26.

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Whole Number Addition Test

Multiple Choice

1. A number that is added in an addition problem is called a(n) _____.

    a. addend   **b.** digit

    c. product   **d.** sum

2. What is the sum of 3 and 5?

    a. 7   **b.** 8   **c.** 9   **d.** 10

3. Add $4 + 0$.

    a. 0   **b.** 4   **c.** 5   **d.** 40

4. Add $6 + 7$.

    a. 11   **b.** 12   **c.** 13   **d.** 14

5. Josh and Mary shared a canoe. Josh paddled the first 3 miles. Then Mary paddled another 3 miles. How far did they paddle together?

    a. 3 miles   **b.** 5 miles

    c. 6 miles   **d.** 7 miles

6. Chloe found 1 egg in one nest and 2 eggs in another nest. How many eggs did she find in all?

    a. 2   **b.** 3   **c.** 4   **d.** 5

Show Your Work

7. What are the addition facts from 0 to 5 for 2s?

8. What is the sum of 2 and 4?

9. There are 5 blue shirts and 2 white shirts in Walker's drawer. How many shirts are in the drawer in all?

Explain Your Answer

10. Explain one way you can find the sum of 6 and 3.

Greater Number Addition Test

Multiple Choice

1. Add 50 + 24.

   a. 36   **b.** 54   **c.** 74   **d.** 84

2. What is the sum of 63 and 13?

   a. 50   **b.** 66   **c.** 73   **d.** 76

3. Add 628 + 71.

   a. 679   **b.** 699   **c.** 709   **d.** 720

4. 2,024 + 615.

   a. 2,089   **b.** 2,639   **c.** 2,674   **d.** 8,174

5. Mr Boylan collected 627 pond water samples and 1,261 lake water samples. How many water samples did he collect in all?

   a. 1,648   **b.** 1,888   **c.** 1,889   **d.** 7,341

6. Add 21 + 162 + 104.

   a. 189   **b.** 276   **c.** 286   **d.** 287

Show Your Work

7. Add 50 + 24.

8. 206 + 132 + 51 = _____

9. Talisha has $2,150 saved for her tuition. Her grandparents gave her another $1,125. How much does Talisha have now?

Explain Your Answer

10. Why is it important to line up addition problems in columns? Use 328 + 71 as an example.

Regrouping Test

Multiple Choice

1. Add 5 + 7.

    a. 11   **b.** 12   **c.** 13   **d.** 14

2. What is the sum of 8 and 3?

    a. 11   **b.** 12   **c.** 13   **d.** 14

3. 6 + 9 = _____

    a. 13   **b.** 14   **c.** 15   **d.** 16

4. Add 5 + 8 + 3.

    a. 13   **b.** 14   **c.** 15   **d.** 16

5. Kathy set up the stage with 8 chairs on the stage floor and another 6 chairs on a platform on the stage. How many chairs did Kathy set up?

    a. 12   **b.** 13   **c.** 14   **d.** 15

6. Sara Jo bought 7 green apples and 7 red apples. How many apples did she buy in all?

    a. 12   **b.** 14   **c.** 15   **d.** 16

Show Your Work

7. What are the addition facts from 0 to 9 for 9s?

8. 6 + 8 = _____

9. Luke had 7 erasers. Jamison gave him 4 more. How many erasers does Luke have now?

Explain Your Answer

10. What is regrouping in addition?

Multi-Digit Regrouping Test

Multiple Choice

1. Add 27 + 49.

   a. 66   **b.** 68   **c.** 76   **d.** 78

2. What is the sum of 956 and 307?

   a. 1,253   **b.** 1,255   **c.** 1,263   **d.** 1,265

3. Which of the following has a sum of 536?

   a. 257 + 279
   b. 165 + 361
   c. 438 + 97
   d. All of the above

4. Which of the following has a sum of 6,380?

   a. 5,119 + 1,261
   b. 3,547 + 2,833
   c. 1,915 + 4,465
   d. All of the above

5. MaryAnn has 34 pictures of her boyfriend on her wall and another 127 pictures of her boyfriend in a scrapbook. How many pictures is that in all?

   a. 151   **b.** 161   **c.** 163   **d.** 171

6. Trish found 64 seashells on the beach. Her sister found 37 seashells. How many did they find in total?

   a. 87   **b.** 91   **c.** 93   **d.** 101

Show Your Work

7. 157 + 999 = _____

8. Add 317 + 492 + 205.

9. Heidi planted 132 tulips in her front flower garden and 78 tulips in her back flower garden. How many tulips did she plant in all?

Explain Your Answer

10. How can you tell quickly whether or not the problem 422 + 364 will use regrouping?

Addition Properties Test

Multiple Choice

1. Which equation illustrates the Commutative Property?

    a. $(4 + 6) + 2 = 4 + (6 + 2)$

    b. $16 + 0 = 16$

    c. $10 + 5 = 5 + 10$

    d. None of the above

2. Which equation illustrates the Associative Property?

    a. $(4 + 6) + 2 = 4 + (6 + 2)$

    b. $16 + 0 = 16$

    c. $10 + 5 = 5 + 10$

    d. None of the above

3. What property allows you to change the grouping of addends?

    a. The Associative Property
    b. The Commutative Property
    c. The Inverse Property
    d. The Zero Property

4. What is the value of the expression $9 + 14 + 21$?

    a. 34   **b.** 39   **c.** 44   **d.** 45

Show Your Work

Evaluate the expressions.

5. $27 + 0$

6. $8 + 12 + 9$

7. Rewrite the expression $7 + 5$ using the commutative property.

Explain Your Answer

8. Explain how addition properties can be used to find the value of this expression:

    $16 + 25 + 4$

Whole Number Subtraction Test

Multiple Choice

1. A number that is subtracted in a subtraction problem is called a _____.

   a. difference   **b.** minuend
   c. subtrahend   **d.** sum

2. Subtract 9 − 4.

   a. 5   **b.** 6   **c.** 8   **d.** 13

3. What is the difference between 15 and 7?

   a. 6   **b.** 7   **c.** 8   **d.** 9

4. Subtract 12 − 8.

   a. 2   **b.** 3   **c.** 4   **d.** 5

5. Trace and Josh shared a canoe. Trace paddled 7 miles and Josh paddled 3 miles. How much farther did Trace paddle?

   a. 2 miles   **b.** 3 miles

   c. 4 miles   **d.** 5 miles

6. Kay has 14 pencils. Five of the pencils are red and the rest are blue. How many blue pencils does Kay have?

   a. 6   **b.** 7   **c.** 8   **d.** 9

Show Your Work

7. Subtract 9 − 4.

8. What is the difference between 17 and 8?

9. Andrea spent $12 at the fair. She spent $5 on admission and the rest on rides and food. How much did Andrea spend on rides and food?

Explain Your Answer

10. Explain one way you could use a number line to show subtraction.

Inverse Operations Test

Multiple Choice

1. Since $8 - 2 = 6$, you know that
   $6 + 2 =$ ___.

   a. 2   **b.** 6   **c.** 8   **d.** 10

2. Since $16 - 9 = 7$, you know that
   $16 - 7 =$ ___.

   a. 6   **b.** 7   **c.** 8   **d.** 9

3. Which fact is part of the fact family for
   $16 - 9 = 7$?

   a. $16 - 8 = 8$ **b.** $9 - 7 = 2$
   c. $7 + 16 = 23$ **d.** $7 + 9 = 16$

4. What is the missing number in this
   fact family?

   $5 +$ __ $= 8$ $8 -$ __ $= 5$
   __ $+ 5 = 8$ $8 - 5 =$ __

   a. 2   **b.** 3   **c.** 4   **d.** 5

5. What is the missing number in this
   fact family?

   $6 + 4 =$ __   __ $- 6 = 4$
   $4 + 6 =$ __   __ $- 4 = 6$

   a. 2   **b.** 8   **c.** 10   **d.** 12

Show Your Work

6. Since $12 - 3 = 9$, you know that
   $9 + 3 =$ ___.

7. Since $5 + 8 = 13$, you know that
   $13 - 8 =$ ___.

8. Hilary said that $36 - 19 = 27$. Use
   addition to check her answer.

9. What is the fact family that includes
   $7 - 3 = 4$?

Explain Your Answer

10. How can the zero property of addition
   be used in subtraction?

Subtracting Larger Numbers Test

Multiple Choice

1. Subtract 49 − 27.

   a. 18   **b.** 22   **c.** 28   **d.** 32

2. What is the difference between 956 and 204?

   a. 652   **b.** 750   **c.** 752   **d.** 754

3. Which of the following is not correct?

   a. 39 − 12 = 27
   b. 68 − 34 = 34
   c. 47 − 26 = 21
   d. 92 − 82 = 12

4. Which of the following has a difference of 6,370?

   a. 9,492 − 3,322
   b. 8,686 − 2,326
   c. 7,674 − 1,304
   d. None of the above

5. Subtract 48,319 − 27,101.

   a. 21,218 **b.** 21,208 **c.** 21,318 **d.** 20,208

6. Julie picked up 67 pop cans and 24 plastic cups from the bleachers after a football game. How many more cans did she pick up than cups?

   a. 41   **b.** 43   **c.** 53   **d.** 91

Show Your Work

7. 999 − 842 = _____

8. Subtract 7,328 − 205.

9. David looked at two cars. The price of the first is $34,168. The price of the second is $22,050. What is the difference in price between the two cars?

Explain Your Answer

10. Tara said 6,829 − 818 = 6,018. Is she correct? Explain.

Subtraction Regrouping Test

Multiple Choice

1. What is the difference between 32 and 28?

a. 4   **b.** 6   **c.** 8   **d.** 14

2. Subtract 64 − 18.

a. 44   **b.** 46   **c.** 54   **d.** 56

3. Subtract 71 − 46.

a. 25   **b.** 29   **c.** 35   **d.** 37

4. The high temperature Monday was 63°F. The low temperature Monday was 37°F. What was the difference between the high and low temperatures on Monday?

a. 16°   **b.** 24°   **c.** 26°   **d.** 34°

5. The Mustangs scored 42 points. The Crushers scored 27 points. How many more points did the Mustangs score?

a. 13   **b.** 15   **c.** 25   **d.** 29

6. Which of the following is not correct?

a. 65 − 28 = 37
b. 44 − 35 = 9
c. 30 − 12 = 28
d. 71 − 35 = 36

Show Your Work

7. Subtract 93 − 74.

8. Subtract 31 − 26.

9. Hannah recorded 54 hours on her DVR. Her unit will hold 72 hours. How many more hours can she record?

Explain Your Answer

10. Why is regrouping in subtraction sometimes called borrowing?

More Regrouping Test

Multiple Choice

1. 711 − 426 = _____

   a. 195   **b.** 285   **c.** 295   **d.** 385

2. What is the difference between 200 and 87?

   a. 93   **b.** 103   **c.** 113   **d.** 123

3. Subtract 3,000 − 1,092.

   a. 1,908 **b.** 1,918 **c.** 1,998 **d.** 2,918

4. Marla is reading a book with 892 pages. She has read 116 pages so far. How many pages does she have left to read?

   a. 764   **b.** 766   **c.** 776   **d.** 784

5. Garrett has saved $546. Jeremy has saved $109 less than Garrett. How much has Jeremy saved?

   a. $109 **b.** $437 **c.** $443 **d.** $447

6. Which of the following is not correct?

   a. 800 − 613 = 187
   b. 600 − 429 = 181
   c. 300 − 207 = 93
   d. 500 − 172 = 328

Show Your Work

7. Subtract 972 − 286.

8. Subtract 4,200 − 3,615.

9. Piedmont Middle School has 702 students. There are 387 students that are girls. How many students are boys?

Explain Your Answer

10. How is regrouping across zeros different than regrouping with other digits?

Mental Math: Addition Test

Multiple Choice

1. Add 400 + 200.

   a. 240   **b.** 420   **c.** 500   **d.** 600

2. Add 300 + 2,000 + 90,000 + 40.

   a. 3,290 **b.** 92,304 **c.** 92,340 **d.** 92,430

3. Add 40 + 80.

   a. 40   **b.** 80   **c.** 120   **d.** 140

4. Add 6 + 7 + 3 + 4.

   a. 16   **b.** 18   **c.** 19   **d.** 20

5. Dennis needs to read the first two chapters of his history book tonight. Chapter 1 has 39 pages. Chapter 2 has 61 pages. Use mental math to find how many pages Dennis should read tonight.

   a. 100   **b.** 101   **c.** 109   **d.** 110

6. Add 4,000 + 200 + 200 + 1,000.

   a. 4,140 **b.** 4,221 **c.** 5,220 **d.** 5,400

Show Your Work

7. Use mental math to find the sum.

   6,000 + 80 + 2 + 400

8. What is the sum of 2,000 and 6,000?

9. Group the addends into sets of 10 to find the value using mental math.

   4 + 7 + 6 + 8 + 4 + 3 + 2

Explain Your Answer

10. Explain one way you can use give and take to add 642 + 208.

Mental Math: Subtraction Test

Multiple Choice

1. Subtract 240 − 136 mentally.

   a. 104   **b.** 106   **c.** 114   **d.** 204

2. Subtract 67 − 18 mentally.

   a. 45   **b.** 49   **c.** 56   **d.** 59

3. Subtract 900 − 200.

   a. 600   **b.** 680   **c.** 700   **d.** 880

4. Use mental math to find the difference between 166 and 380.

   a. 184   **b.** 186   **c.** 214   **d.** 224

5. Pat planted 64 pepper plants. Dave planted 162 pepper plants. Use mental math to find how many more pepper plants Dave planted.

   a. 82   **b.** 88   **c.** 92   **d.** 98

6. Dana wants to buy a longboard that costs $88. She has $67 saved so far. Use mental math to find how much money Dana still needs.

   a. $21   **b.** $23   **c.** $25   **d.** $31

Show Your Work

Use mental math to solve the following.

7. Devin and Cheri were playing Monopoly. Devin had $2,450. He had to pay Cheri $300. How much did Devin have left?

8. Erin had $485. She bought an mp3 player for $242. How much money did she have left?

9. Anne had 72 guppies. She gave away 39 of them. How many did she have left?

Explain Your Answer

10. Explain how you can mentally count up to find the difference between 82 and 100.

Decimal Addition Test

Multiple Choice

1. Add 6.4 + 2.3.

   a. 6.6   **b.** 6.7   **c.** 8.4   **d.** 8.7

2. Add 4.02 + 2.501.

   a. 2.903 **b.** 6.053 **c.** 6.521 **d.** 6.701

3. 13.64 + 8.7 = _____

   a. 21.34 **b. 21.67** **c. 22.34** **d. 24.34**

4. $12.25 + $7.25

   a. $15.50   **b.** $19.50

   c. $20.00   **d.** $20.50

5. Paul ran his leg of a relay in 12.6 seconds. James ran his leg in 11.04 seconds. What was their combined time?

   a. 13.64 seconds   **b.** 22.64 seconds

   c. 23.64 seconds   **d.** 24.00 seconds

6. Talesha spent $5.27 at a drive-thru for breakfast and another $3.29 in a coffee shop for a latte. How much did she spend in all?

   a. $7.56   **b.** $8.45

   c. $8.46   **d.** $8.56

Show Your Work

7. 13.64 + 8.7 = _____

8. Taylor ordered ham, homefries, and a green salad. How much was the total for his order?

Item	Cost
Chicken or ham	$3.50
Meatloaf	$3.25
Potatoes-mashed, baked, or homefries	$2.25
Vegetable de jour	$1.75
Soup de jour	$1.25
Green salad	$1.75

9. A 4-person relay had individual times of 6.2, 6.04, 4.7, and 5.92 seconds. What was the total time for the relay?

Explain Your Answer

10. How are decimal addition and whole number addition different?

Decimal Subtraction Test

Multiple Choice

1. Subtract 1.48 − 0.31.

    a. 1.17   **b.** 1.19   **c.** 1.77   **d.** 1.79

2. 3.94 − 2.6 = _____

    a. 0.34   **b.** 1.34   **c.** 1.88   **d.** 3.68

3. 4 − 1.8 = _____

    a. 2.2   **b.** 2.8   **c.** 3.2   **d.** 3.8

4. What is the difference between 1 and 0.02?

    a. 0.08   **b.** 0.8   **c.** 0.98   **d.** 1.08

5. Terrell paid a $5.89 charge with a $20 bill. How much was his change?

    a. $14.11 **b.** $14.21 **c.** $15.11 **d.** $15.21

6. Jenny's average score on her gymnastics routine was a 7.62. Greta's average score was an 8.35. What is the difference between the two scores?

    a. 0.33   **b.** 0.73   **c.** 1.33   **d.** 1.73

Show Your Work

7. 4.47 − 2.91 = _____

8. Subtract 0.6 − 0.42.

9. A medium pizza costs $6.99, with each topping an additional $0.49. A large pizza costs $7.49, with topping an additional $0.69. What is the difference in price between a medium 2-topping and a large 1-topping pizza?

Explain Your Answer

10. Why can you add a zero on the right end of a decimal?

Integer Addition Test

Multiple Choice

1. What is the sum of $^+5$ and $^+2$?

   a. $^+3$ **b.** $^-3$ **c.** $^+7$ **d.** $^-7$

2. Add $^+5$ and $^-4$.

   a. $^+9$ **b.** $^-9$ **c.** $^+1$ **d.** $^-1$

3. What is the sum of $^-12$ and $^+7$?

   a. $^+19$ **b.** $^-19$ **c.** $^+5$ **d.** $^-5$

4. Find the sum of $^-4$ and $^-1$.

   a. $^-5$ **b.** $^-3$ **c.** $^+3$ **d.** $^+5$

5. The temperature in Chicago was $^-12°F$ in the morning. The temperature rose 20°F to reach the high for the day.
What was the high temperature?

   a. $^-8$ degrees   **b.** $^+8$ degrees
   c. $^-32$ degrees   **d.** $^+32$ degrees

6. The temperature decreased 6 degrees in one hour, then decreased another 3 degrees in the next hour. What was the total change in temperature?

   a. $^-3$ degrees   **b.** $^+3$ degrees
   c. $^-9$ degrees   **d.** $^+9$ degrees

Show Your Work

7. $^+8 + {}^+2 =$ _____

8. Find the sum of $^-5$ and $^-3$.

9. Use a number line to show and solve the equation $^-2 + {}^+4 =$ _____.

Explain Your Answer

10. Explain how to add numbers with unlike signs.

Integer Subtraction Test

Multiple Choice

1. Subtract $^+11 - {}^+8$.

   a. $^-19$ **b.** $^+19$ **c.** $^-3$ **d.** $^+3$

2. Subtract $^-4 - {}^+10$.

   a. $^+14$ **b.** $^-14$ **c.** $^+6$ **d.** $^-6$

3. Find the difference. $^-8 - {}^-3$.

   a. $^-11$ **b.** $^+11$ **c.** $^-5$ **d.** $^+5$

4. Find the difference. $^+6 - {}^-4$.

   a. $^+10$ **b.** $^-10$ **c.** $^+2$ **d.** $^-2$

5. The temperature was −2°F when Juanes went to work. By his lunch hour, the temperature was 16°F. What integer represents the change in temperature?

   a. $^-18$ **b.** $^-14$ **c.** $^+14$ **d.** $^+18$

Show Your Work

6. $^-12 - {}^-5 =$ _____

7. $^+8 - {}^-7 =$ _____

8. Any number can be subtracted by adding the _____ number.

9. Seth's score in his first round of golf was 3 above par. By his third round, his score was 8 below par. What integer shows the change in Seth's score?

Explain Your Answer

10. What are like and unlike integers?

Fraction Addition Test

Multiple Choice

1. What is the sum of 3/10 and 4/10?

   a. 1/10   **b.** 3/4   **c.** 7/10   **d.** 7/20

2. 6/8 + 1/8 = _____

   a. 5/8   **b.** 1/16   **c.** 7/16   **d.** 7/8

3. Which fraction is equivalent to 16/20?

   a. 9/10   **b.** 3/4   **c.** 4/5   **d.** 6/7

4. What is 12/30 in lowest terms?

   a. 4/10   **b.** 2/5   **c.** 6/15   **d.** 4/5

5. What is the sum of 3/10 and 2/5?

   a. 1/2   **b.** 3/10   **c.** 1/3   **d.** 7/10

6. 1/4 + 2/3 = _____

   a. 3/7   **b.** 7/12   **c.** 3/4   **d.** 11/12

Show Your Work

7. 3/5 + 1/5 = _____

8. In lowest terms, what is the sum of 2/15 and 5/12?

9. A recipe calls for 1/3 cup of granular white sugar and 1/2 cup of brown sugar. In lowest terms, how much sugar is used in all?

Explain Your Answer

10. What are the steps for adding unlike fractions?

Mixed Fraction Addition Test

Multiple Choice

1. Find the sum of $1\frac{1}{3}$ and $1\frac{1}{3}$.

   a. $1\frac{1}{3}$ **b.** $1\frac{2}{3}$ **c.** $2\frac{1}{3}$ **d.** $2\frac{2}{3}$

2. Find the sum of $2\frac{3}{12}$ and $3\frac{7}{12}$.

   a. $5\frac{5}{6}$ **b.** $5\frac{7}{12}$ **c.** $6\frac{9}{12}$ **d.** $6\frac{5}{6}$

3. In lowest terms, what is the sum of $2\frac{12}{15}$ and $3\frac{8}{15}$?

   a. $5\frac{1}{3}$ **b.** $5\frac{2}{5}$ **c.** $6\frac{1}{3}$ **d.** $6\frac{4}{15}$

4. Find the sum of $3\frac{1}{2}$ and $6\frac{5}{7}$.

   a. $9\frac{5}{9}$ **b.** $9\frac{2}{3}$ **c.** $10\frac{6}{7}$ **d.** $10\frac{3}{14}$

5. Find the sum of $1\frac{2}{5}$ and $\frac{1}{4}$.

   a. $1\frac{1}{3}$ **b.** $1\frac{13}{20}$ **c.** $2\frac{13}{20}$ **d.** $2\frac{1}{20}$

6. A right whale calf eats $\frac{9}{10}$ ton of zooplankton each day. His mother eats $2\frac{1}{4}$ tons of zooplankton. How many tons of zooplankton do the two of them eat together each day?

   a. $2\frac{3}{20}$ **b.** $3\frac{3}{20}$ **c.** $3\frac{11}{20}$ **d.** $4\frac{1}{20}$

Show Your Work

7. Find the sum of $2\frac{1}{12}$ and $3\frac{9}{12}$.

8. A granola recipe calls for $3\frac{2}{3}$ cups of walnuts and $4\frac{1}{3}$ of pecans. How many cups of nuts are used in the granola recipe?

9. Zach's dog is $1\frac{1}{2}$ years old. His cat is $8\frac{1}{4}$ years older than his dog. How old is Zach's cat?

Explain Your Answer

10. Jack baked 6 pies. He sold some of the pie and has $2\frac{5}{6}$ pies left. He says he sold $4\frac{1}{6}$ of the pies. Is he correct? Explain.

Fraction Subtraction Test

Multiple Choice

1. In lowest terms, what is the difference between 4/5 and 1/5?

   a. 2/5   **b.** 3/5   **c.** 1   **d.** 3

2. Subtract 5/6 − 1/3.

   a. 2/9   **b.** 1/2   **c.** 2/3   **d.** 4/9

3. Subtract 1/3 − 2/7.

   a. 1/7   **b.** 1/21   **c.** 1/14   **d.** 4/21

4. Which of the following is NOT correct?

   a. 5/6 − 2/3 = 1/6 **b.** 1/3 − 2/15 = 1/5
   c. 7/12 − 1/3 = 1/4 **d.** 17/21 − 2/3 = 3/7

5. Jacob put 8/9 of his cake into the refrigerator to save overnight. When he went to get it in the morning, only 7/9 of the cake was there. How much of the cake disappeared overnight?

   a. 1/9   **b.** 2/9   **c.** 7/9   **d.** 8/9

6. Patrice has 3/4 of her book left to read. If she reads 1/5 of the book today, how much will she still need to read?

   a. 3/10   **b.** 2/5   **c.** 1/2   **d.** 11/20

Show Your Work

7. Subtract 5/16 − 1/16.

8. Find the missing addend. Write your answer in lowest terms.

   _____ + $^2/_3$ = $^{13}/_{15}$

Explain Your Answer

9. Megan grew 3/16 inch over the summer. Julie grew 1/8 inch in the same time. Explain how to decide which girl grew more, and by how much.

Mixed Fraction Subtraction Test

Multiple Choice

1. Find the difference in lowest terms.

$$3 \tfrac{3}{8} - 2 \tfrac{1}{8}$$

  a. $1\tfrac{1}{4}$ **b.** $\tfrac{1}{2}$ **c.** $1\tfrac{4}{8}$ **d.** $1\tfrac{2}{4}$

2. Find the difference in lowest terms.

$$5 \tfrac{5}{12} - 2 \tfrac{7}{12}$$

  a. $3\tfrac{1}{6}$ **b.** $3\tfrac{5}{6}$ **c.** $2\tfrac{10}{12}$ **d.** $2\tfrac{5}{6}$

3. Subtract $5 - \tfrac{4}{5}$.

  a. $3\tfrac{1}{5}$ **b.** $3\tfrac{4}{5}$ **c.** $4\tfrac{1}{5}$ **d.** $4\tfrac{2}{5}$

4. Which of the following has a difference of $1\tfrac{1}{15}$?

  a. $4\tfrac{7}{15} - 2\tfrac{1}{3}$ **b.** $3\tfrac{4}{15} - 2\tfrac{1}{3}$
  c. $3\tfrac{4}{15} - 2\tfrac{1}{5}$ **d.** $3\tfrac{4}{15} - 1\tfrac{1}{5}$

5. $6 \tfrac{13}{24} - 4 \tfrac{1}{3} =$ _____

  a. $2\tfrac{5}{24}$ **b.** $2\tfrac{1}{12}$ **c.** $1\tfrac{23}{24}$ **d.** $1\tfrac{5}{24}$

6. A large truck weighs $12\tfrac{1}{2}$ tons. A smaller truck weighs $6\tfrac{1}{3}$ tons. How many more tons does the large truck weigh?

  a. $5\tfrac{1}{6}$ **b.** $5\tfrac{5}{6}$ **c.** $6\tfrac{1}{6}$ **d.** $6\tfrac{5}{6}$

Show Your Work

7. $2 \tfrac{7}{8} +$ _____ $= 3 \tfrac{1}{4}$

8. Kylie walks at least $5 \tfrac{1}{2}$ miles each day. She has already walked $1 \tfrac{3}{10}$ miles today. How far does Kylie still need to walk today?

Explain Your Answer

10. Explain how to regroup in order to subtract 1/4 from 2.

Adding Measurements Test

Multiple Choice

1. Add 6 inches and 5 inches.

    a. 1 inch   **b.** 10 inches

    c. 11 inches   **d.** 13 inches

2. How many ounces are in 3 pounds?

    a. 19   **b.** 24   **c.** 36   **d.** 48

3. China spent 90 seconds brushing her hair and another minute looking at her hair in the mirror. How long did China spend on her hair?

    a. 91 seconds   **b.** 120 seconds

    c. 150 seconds   **d.** 180 seconds

4. What is the perimeter of a rectangle that is 2 meters long and 1.5 meters wide?

    a. 3.5 meters   **b.** 5 meters

    c. 5.5 meters   **d.** 7 meters

5. A recipe for punch uses 3 quarts of pineapple juice, 2 quarts of tangerine juice, and 1 gallon of ginger ale. How much punch does the recipe make?

    a. 1 gallon 2 quarts

    b. 2 gallons 1 quart

    c. 2 gallons 2 quarts

    d. 3 gallons 1 quart

Show Your Work

6. Add.   5 pounds 8 ounces

      + 2 pounds 10 ounces

      _____

7. Akshat spent 1 hour and 42 minutes driving into the city for a concert. He spent another 48 minutes trying to find a parking space. How long did it take Akshat to get to the concert?

Explain Your Answer

8. Trace spent 8 days driving across the country to visit his aunt. Then, he spent 15 days at her house. Finally, he took 12 days to drive home. Explain how to find the number of weeks Trace spent on his trip.

Subtracting Measurements Test

Multiple Choice

1. Subtract 3 pounds 8 ounces from 6 pounds 10 ounces.

   a. 3 pounds 2 ounces
   b. 3 pounds 6 ounces
   c. 3 pounds 8 ounces
   d. 4 pounds 2 ounces

2. Selena was at the pool for 3 hours. She spent 1 hour and 12 minutes swimming, and the rest of the time reading a book. How long did Selena read a book?

   a. 1 hour 42 minutes
   b. 1 hour 48 minutes
   c. 2 hours 28 minutes
   d. 2 hours 48 minutes

3. Bristol walked 2.4 miles in 1/2 hour. Jeff walked 3.1 miles in 1/2 hour. How much farther did Jeff walk?

   a. 0.7 miles   **b.** 1.3 miles
   c. 1.7 miles   **d.** 4.5 miles

4. Two of a triangle's sides measure 2 meters and 314 centimeters. The perimeter of the triangle is 862 centimeters. What is the length of the third side?

   a. 328 centimeters   **b.** 348 centimeters
   c. 514 centimeters   **d.** 528 centimeters

Show Your Work

5. Subtract.

       3 days 12 hours
   − 2 days 17 hours

6. Gianna poured 2 pints of juice from a full one gallon container. How much juice is left in the container?

Explain Your Answer

7. Michelle had an 8 foot long board. She cut an 18 inch section from one end. Explain how to find the length of the remaining board.

Estimation: Addition Test

Multiple Choice

1. Estimate the sum of 7,854 and 5,735.

    a. 12,000   **b.** 13,000
    c. 14,000   **d.** 15,000

2. Which method will give the best estimate for the sum of 162.8 and 221.7?

    a. Round to the ones place.
    b. Round to the tens place.
    c. Round to the hundreds place.

3. Phil spent $3.87 on peanut butter, $2.19 on bread and $5.69 on soda. About how much did he spend in all?

    a. $10.00   **b.** $10.50
    c. $11.00   **d.** $12.00

4. Estimate the sum of 1/15, 1/17, and 1/19.

    a. 1/5   **b.** 3/17   **c.** 1/6   **d.** 3/19

5. What is the best estimate of 46,204 + 46,285?

    a. 93,000   **b.** 92,500
    c. 92,000   **d.** none of these

Show Your Work

6. Estimate the sum of 1/2, 2/3, and 1/4.

7. Round each addend to the nearest hundred to estimate the sum of 384 and 1,112.

Explain Your Answer

8. Becca added 5.87 and 6.21 and got a sum of 12.08. How can she use estimation to check her answer for reasonableness?

Estimation: Subtraction Test

Multiple Choice

1. Estimate the difference between 7,854 and 5,735.

    a. 2,000   **b.** 3,000
    c. 4,000   **d.** 5,000

2. Estimate the difference by rounding to the greatest place value.

    968.2 − 546.8

    a. 420   **b.** 420.4   **c.** 421   **d.** 500

3. Suzanne owes her brother $8.82. About how much change will she get if she pays him with a $20 bill?

    a. $10.00   **b.** $11.00
    c. $12.00   **d.** $15.00

4. Viola estimated 12.68 − 6.42 to be 6. Her estimate is _____.

    a. an overestimate
    b. an underestimate
    c. an exact answer

5. What is the best estimate of 334 − 192?

    a. 100   **b.** 130
    c. 140   **d.** none of these

Show Your Work

6. Jake bought 253 hot dog buns and 122 hamburger buns. Use compatible numbers to estimate how many more hot dog buns he bought than hamburger buns.

7. Carol started with $35.00. She bought a pair of sandals for $16.95. She would like to buy sunglasses that cost $19.97. Use estimation to decide if she has enough money left.

Explain Your Answer

8. Gina and Terry are on a tight wedding budget. They have $3,500 left to spend on a cake, a band, and a photographer. The photographer charges $1,500, and the cake will cost $685. Should Gina and Terry estimate, or find the exact amount they have left to spend on a band? Explain.

Answers

Whole Number Addition Test

Page 2: **1.** a **2.** b **3.** b **4.** c **5.** c **6.** b **7.** 2 + 0 = 2, 2 + 1 = 3, 2 + 2 = 4, 2 + 3 = 5, 2 + 4 = 6, 2 + 5 = 7 **8.** 6 **9.** There are 7 shirts in all in the drawer. **10.** Possible answer: You can count up, begin with 6 and count 3 more. 6, 7, 8, 9. The sum of 6 and 3 is 9.

Greater Number Addition Test

Page 3: **1.** c **2.** d **3.** b **4.** b **5.** b **6.** d **7.** 74 **8.** 389 **9.** Talisha has $3,275. **10.** The addends 328 and 71 have different numbers of digits. When you put the addends in columns, the place values line up, so it is easier to add the correct place values.

Regrouping Test

Page 4: **1.** b **2.** a **3.** c **4.** d **5.** c **6.** b **7.** 9 + 0 = 9, 9 + 1 = 10, 9 + 2 = 11, 9 + 3 = 12, 9 + 4 = 13, 9 + 5 = 14, 9 + 6 = 15, 9 + 7 = 16, 9 + 8 = 17, 9 + 9 = 18 **8.** 14 **9.** Luke has 11 erasers. **10.** In addition, regrouping is when the digits in one column have a total that is greater than 9. A group of 10 in one place value can be regrouped as 1 of the next higher place value. For example, 10 ones are the same as 1 ten.

Multi-Digit Regrouping Test

Page 5: **1.** c **2.** c **3.** a **4.** d **5.** b **6.** d **7.** 1,156 **8.** 1,014 **9.** Heidi planted 210 tulips in all. **10.** You can look at the corresponding place values in each addend to decide if the problem uses regrouping. If any of the digits in corresponding place values have a sum greater than 9, you will need to regroup.

Addition Properties Test

Page 6: **1.** c **2.** a **3.** a **4.** c **5.** 27 **6.** 29 **7.** 5 + 7 **8.** The value of the expression can be found using the commutative and associative properties of addition. Use the commutative property to change the order of the first two addends. 16 + 25 + 4 becomes 25 + 16 + 4. Use the associative property to group the last two addends, which can be easily added. 25 + (16 + 4) = 25 + (20) = 45.

Whole Number Subtraction Test

Page 7: **1.** c **2.** a **3.** c **4.** c **5.** c **6.** d **7.** 5 **8.** 9 **9.** Andrea spent $7 on rides and food. **10.** You can use a number line to show subtraction by beginning at the number you are subtracting from. Move left the number of units that you are subtracting. The number you end on is the answer.

Inverse Operations Test

Page 8:   **1.** c **2.** d **3.** d **4.** b **5.** c **6.** 12 **7.** 5 **8.** Since 27 + 19 = 46, Hilary's answer is not correct. **9.** 4 + 3 = 7, 3 + 4 = 7, 7 − 4 = 3, and 7 − 3 = 4. **10.** The zero property of addition says that when you add 0 to a number, the number stays the same. 7 + 0 = 7. Because addition and subtraction are inverse, you know that 7 − 0 = 7. You can subtract zero from any number and the number stays the same. This does not work if you try to subtract a number from zero.

Subtracting Larger Numbers Test

Page 9:   **1.** b **2.** c **3.** d **4.** c **5.** a **6.** b **7.** 157 **8.** 7,123 **9.** The difference in price between the two cars is $12,118. **10.** Tara is not correct. When you line up the digits to subtract, the ones place is 9 − 8 = 1. The answer should have a 1 in the ones place.

Subtraction Regrouping Test

Page 10:   **1.** a **2.** b **3.** a **4.** c **5.** b **6.** c **7.** 19 **8.** 5 **9.** Hannah can record 18 more hours. **10.** In subtraction, regrouping takes, or borrows, a unit from a larger place value and breaks it into ten of the next smaller place value.

More Regrouping Test

Page 11:   **1.** b **2.** c **3.** a **4.** c **5.** b **6.** b **7.** 686 **8.** 585 **9.** There are 315 boys at Piedmont Middle School. **10.** When you regroup across zeros, you cannot regroup from the next highest place value. You have to go across the zeros to the next higher place value that has a digit other than zero.

Mental Math: Addition Test

Page 12:   **1.** d **2.** c **3.** c **4.** d **5.** a **6.** d **7.** 6,482 **8.** 8,000 **9.** 34 **10.** You can add these numbers using mental math by taking the 8 in the ones place of 208, leaving 200. Give the 8 in the ones place to 642, making the ones place value a 10, which regroups to the tens place for 650. 200 + 650 = 850.

Mental Math: Subtraction Test

Page 13:   **1.** a **2.** b **3.** c **4.** c **5.** d **6.** a **7.** Devin had $2,150 left. **8.** Erin had $243 left. **9.** Anne had 33 guppies left. **10.** To find the difference between 82 and 100 you can count up from 82 to 100. Count up to the nearest 10. From 82 to 90 is 8. From 90 to 100 is 10. The difference between 82 and 100 is 18.

Decimal Addition Test
Page 14:   **1.** d **2.** c **3.** c **4.** b **5.** c **6.** d **7.** 22.34 **8.** Taylor's total was $7.50. **9.** The total time was 22.86 seconds. **10.** Adding decimals and adding whole numbers are different in only the decimal point. The final place in a decimal number is not always the ones place, so with decimals, you must line up place values using the decimal point. Add decimals just like whole numbers, but remember to insert the decimal point.

Decimal Subtraction Test
Page 15:   **1.** a **2.** b **3.** a **4.** c **5.** a **6.** b **7.** 1.56 **8.** 0.18 **9.** The difference in price is $0.21. **10.** Adding a zero, or any number of zeros, to the right of a decimal does not change the value of the number. For example, 0.2, 0.20, and 0.200 are equivalent decimals.

Integer Addition Test
Page 16:   **1.** c **2.** c **3.** d **4.** a **5.** b **6.** c **7.** $^{+}$10 **8.** $^{-}$8 **9.** Answer must have number line for full credit. $^{-}2 + {^{+}4} = {^{+}2}$ **10.** Find the absolute value of each number. Subtract the smaller absolute value from the larger absolute value. The result takes the sign of the integer with the greater absolute value.

Integer Subtraction Test
Page 17:   **1.** d **2.** b **3.** c **4.** a **5.** d **6.** $^{-}$7 **7.** $^{+}$15 **8.** opposite **9.** $^{-}$11 **10.** Like integers have the same sign. Unlike integers have different signs (positve and negative).

Fraction Addition Test
Page 18:   **1.** c **2.** d **3.** c **4.** b **5.** d **6.** d **7.** 4/5 **8.** 11/20 **9.** There is 5/6 cup of sugar used in all. **10.** You can add unlike fractions with these steps. 1. Use equivalent fractions to write the addends as like fractions. 2. Add the like fractions, adding numerators, keep the denominator. 3. Write the sum in lowest terms.

Mixed Fraction Addition Test
Page 19:   **1.** d **2.** a **3.** c **4.** d **5.** b **6.** b **7.** $5\frac{5}{6}$ **8.** The granola recipe uses 8 cups of nuts. **9.** Zach's cat is $9\frac{3}{4}$ years old. **10.** No, Jack is not correct. When you add the number of pies Jack has left, $2\frac{5}{6}$, and the number of pies he thinks he sold, $4\frac{1}{6}$, you get 7. $2\frac{5}{6} + 4\frac{1}{6} = 7$. Jack baked 6 pies, not 7 pies.

Fraction Subtraction Test

Page 20:   **1.** b **2.** b **3.** b **4.** d **5.** a **6.** d **7.** 1/4 **8.** 1/5 **9.** Compare the amounts that each girl grew by writing the fractions as like fractions. 1/8 is the same as 2/16. Since 3/16 is greater than 2/16, 3/16 is also greater than 1/8. Subtract the like fractions to find the difference. 3/16 − 2/16 = 1/16. Megan grew 1/16 inch more than Julie.

Mixed Fraction Subtraction Test

Page 21:   **1.** a **2.** d **3.** c **4.** c **5.** a **6.** c **7.** 3/8 **8.** Kylie still needs to walk $4^1/_5$ miles today. **9.** To subtract 1/4 from 2, regroup two as $1^4/_4$. When you subtract 1/4 from $1^4/_4$, the difference is $1^3/_4$.

Adding Measurements Test

Page 22:   **1.** c **2.** d **3.** c **4.** d **5.** d **6.** 8 pounds 2 ounces **7.** It took Akshat 2 hours and 30 minutes to get to the concert. **8.** To find the number of weeks Trace spent on his trip, first add to find the number of days. 8 + 15 + 12 = 35 days. Next convert the number of days into weeks. 35/7 = 5. Trace spent 5 weeks on his trip.

Subtracting Measurements Test

Page 23:   **1.** a **2.** b **3.** a **4.** b **5.** 19 hours **6.** 6 pints or 3 quarts **7.** The original board is measured in feet, and the length cut off is measured in inches. Change the measurements to be like units. One way to do this is to change the measure into feet. 18 inches = $1^1/_2$ feet. Subtract. 8 - $1^1/_2$ = $6^1/_2$ The remaining board is $6^1/_2$ feet long.

Estimation: Addition Test

Page 24:   **1.** c **2.** a **3.** d **4.** b **5.** b **6.** Estimates may vary, about $1^1/_2$ **7.** 1,500 **8.** Becca can check her answer by rounding each addend to the nearest whole number. 6 + 6 = 12. Becca's answer is very close to 12, so it is reasonable.

Estimation: Subtraction Test

Page 25:   **1.** a **2.** d **3.** b **4.** b **5.** c **6.** Estimates may vary. Jake bought about 125 more hot dog buns than hamburger buns. **7.** No, Carol does not have enough money left for the sunglasses. **8.** Answers may vary. Explanation of reasoning should be included. Gina and Terry should find the exact amount. If they estimate too low, they will go over budget. If they know the exact amount, they can plan to spend a little less in case something else goes over budget.