Zeta

Lesson 4   **Adding Decimal Numbers**

(1) Zeta Instruction Manual - Lesson 4
(2) Zeta Student Text - Lesson 4
(3) Zeta Test Booklet - Test 4
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Zeta extends the student's concept of Place Value to the right of the decimal point. Students learn to complete core operations with decimals. The connection between fractions and decimals is presented.

These Zeta Sample Pages will give you an idea of Math-U-See's unique method of instruction. However, the cornerstone of Math-U-See's success in teaching Decimals, Percents and other topics is our multi-sensory approach to maths instruction. Integrated Manipulatives and Lesson-by-Lesson videos are used in every lesson throughout the Zeta Level to incorporate kinaesthetic, visual and auditory learning.

If you believe that Zeta is the level for your student to begin, please confirm this by completing our free online placement tests.

To Your Success!!

AUSTRALIAN EDITION

Math·U·See®

Lesson 4: Add Decimal Numbers

In this lesson, you get to meet the pieces that represent the decimals. Turn a red hundred square upside down so the hollow side is showing, and snap the flat green piece (from the algebra/decimal inserts) into the back. Then turn over several blue 10 bars and snap the flat blue pieces (also from the inserts) into their backs. Then take out the little one-half inch red cubes.

The large green square represents one unit. We've increased the size of the unit from the little green cube to this larger size, just as we did when learning fractions. Since the large green square represents one, what do you think the flat blue bars represent? It takes ten of them to make one, so they are each 1/10 or .1. The red cubes represent 1/100 or .01.

In Figure 1, we represent 1.56 or 1 x 1 + 5 x 1/10 + 6 x 1/100 with the decimal inserts.

Figure 1

| 1 | . | 5 | 6 | = | 1.56 |
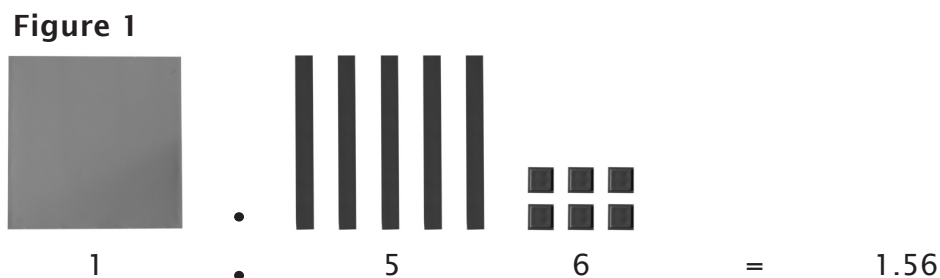
As we've said before, money is a pure decimal function. If figure 1 represents money with the green unit as one dollar, then 1/10 of a dollar is one dime and is represented by the blue 1/10 bars. As shown with the red cubes, 1/100 of a dollar or 1/10 of a dime is one penny.

Figure 2

$ 1 . 5 6 = $1.56

This will help us in adding and subtracting decimals. The key to understanding this is the old adage, "to compare or combine, you must be the same kind." You can only add dollars to dollars and dimes to dimes and pennies to pennies. So also in decimals, you can only add units to units and tenths to tenths and hundredths to hundredths. The easiest way to distinguish the values and make sure you are combining like values is by writing numbers vertically, so the decimal point in one number is directly above (or below) the decimal point in the other number. Lining up these points ensures you that your place values are also lined up. You may only add or subtract two numbers if they have the same value.

When using the inserts, it is clear that you can only add the green to the green, the blue to the blue, etc. But when we don't have the inserts for larger numbers, always line up the decimal points. The same skills are used for adding decimals and money as for adding any number. Remember that decimals are pure base 10. You've just learned some new kinds of decimal values.
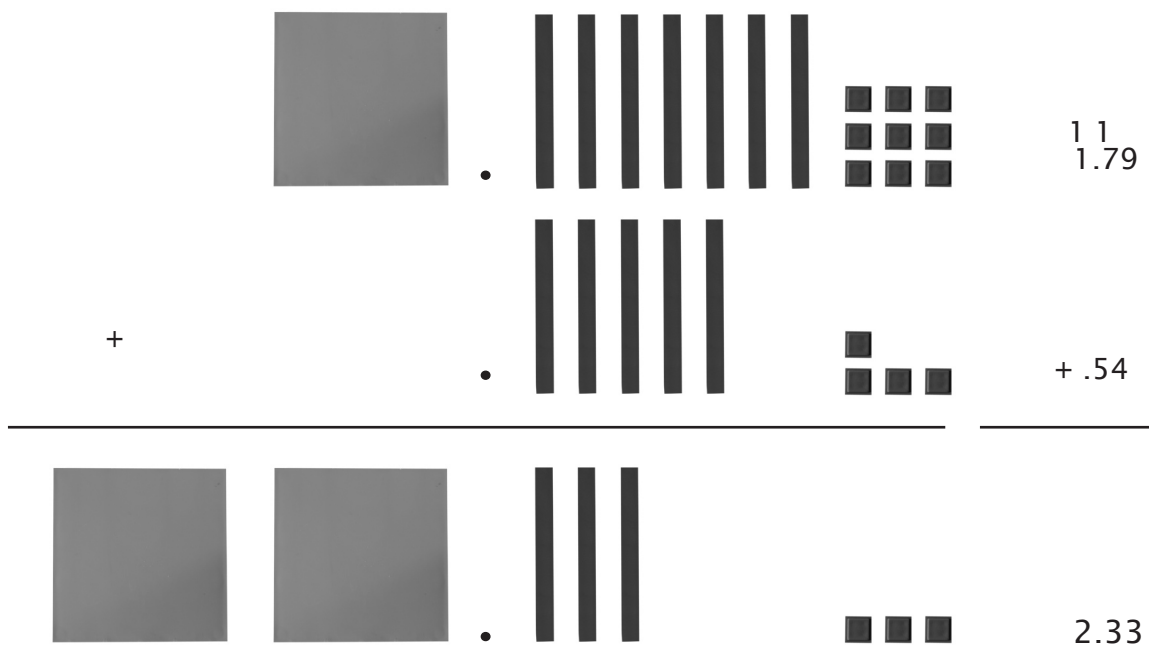
Example 1
Add 1.56 + 1.23

1.56

+

+ 1.23

2.79
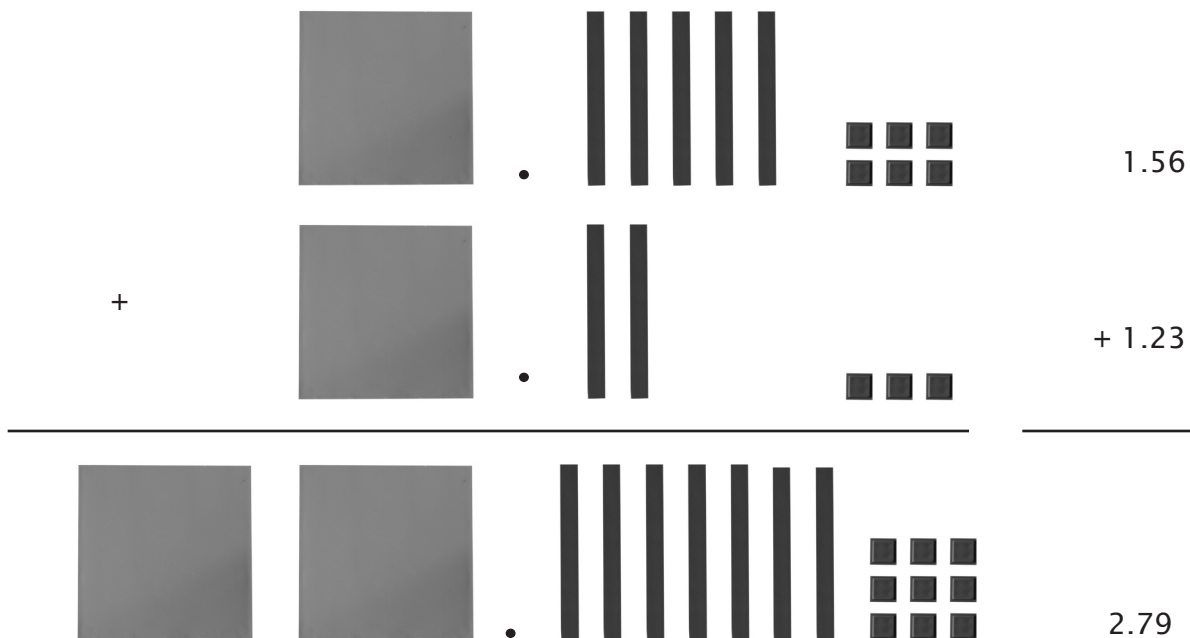
Example 2
Add 1.79 + .54

1 1
1.79

+

+ .54

2.33

Student Text: Lesson Practice 4A

Add the decimal numbers. Some of these can be built with the manipulatives and some cannot. The first two are done for you. (Writing the zero before the decimal is optional when giving your answers.)

1.
$$\begin{array}{r} 1.3 \\ +\ 2.6 \\ \hline 3.9 \end{array}$$

2.
$$\begin{array}{r} {}^{1} \\ 2.9 \\ +\ 1.2 \\ \hline 4.1 \end{array}$$

3.
$$\begin{array}{r} 1.5\ 3 \\ +1.1\ 2 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 2.1\ 7 \\ +\ .3\ 1 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 1.8 \\ +\ 1.0 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 3.2 \\ +\ \ .4 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 1.1\ 3 \\ +1.6\ 8 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 1.6\ 7 \\ +\ .4\ 2 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 1.5 \\ +\ \ 1.2 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 2.1 \\ +\ \ .8 \\ \hline \end{array}$$

Student Text: Lesson Practice 4A

11.
```
   1.1 6
 + 1.4 6
```

12.
```
   3.9 0
 +  .0 2
```

13.
```
   2.6
 +  1.5
```

14.
```
   1.8
 +  1.3
```

15.
```
   3.0 0
 +  1.6 2
```

16.
```
   4.4 8
 + .1 0
```

17. Jon had $4.51 in one pocket and $0.35 in another pocket. How much money did he have in all? (When solving word problems, be sure to line up the decimal points.)

18. Emily drove 1.5 kilometres in the morning and 2.72 kilometres in the afternoon. How many kilometres did she drive in all today?

Student Text: Lesson Practice 4B

Add the decimal numbers. You cannot build these with the manipulatives.
Add thou-sandths just like regular addition, and keep the decimal points lined up.

1.
$$\begin{array}{r} 7.1 \\ + 6.2 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 5.9 \\ + 1.2 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 2.4\ 5 \\ + 5.0\ 7 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 4.1\ 3 \\ + 1.9\ 6 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 7.0 \\ + 2.8 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 1.5 \\ + 9.3 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 8.8\ 4 \\ + 3.0\ 9 \\ \hline \end{array}$$

8.
$$\begin{array}{r} .4\ 3\ 7 \\ + .2\ 5\ 0 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 8.8 \\ + 3.4 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 6.2 \\ + .4 \\ \hline \end{array}$$

Student Text: Lesson Practice 4B

11.
$$\begin{array}{r} 2.7\,0 \\ +\ 9.4\,1 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 5.5\,2 \\ +\ .6\,0 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 3.9 \\ +\ 4.0 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 7.5 \\ +\ .8 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 4.1\,5 \\ +\ 3.0\,0 \\ \hline \end{array}$$

16.
$$\begin{array}{r} .5\,2\,4 \\ +\ .2\,7\,7 \\ \hline \end{array}$$

17. Andrew bought a shirt for $12.95 and a pair of pants for $15.50. How much did Andrew have to pay altogether?

18. Clyde sold .625 gallons of lemonade in the morning. The afternoon was hotter, and he sold 2.125 gallons of lemonade. How many gallons of lemonade did Clyde sell that day?

Student Text: Lesson Practice 4C

Add the decimal numbers.

1.   3.0
     + 9.8

2.   7.1
     + 1.3

3.   1.9 5
    + 8.1 5

4.   3.5 1
    + 2.6 8

5.   5.9
    + .4

6.   4.1
    + 3.0

7.   2.3 4
    + .7 1

8.   .4 4 0
    + .3 0 0

9.   6.5
    + 5.0

10.   2.8
    + 5.9

Student Text: Lesson Practice 4C

11.
```
    7.4 8
  + 1.9 3
```

12.
```
    .1 6 2
  + 8.0 0 0
```

13.
```
    8.7
  + 8.1
```

14.
```
    6.0
  + .1
```

15.
```
    .7 3 1
  + .4 0 2
```

16.
```
    1.1 2 5
  + .1 1 2
```

17. Jean bought 4.3 kgs of apples and 0.5 kgs of pears. How many kilograms of fruit did she buy?

18. A meteorologist had a gauge that could measure rainfall to the thousandth of a centimetre. On Monday his gauge recorded 2.045 cms and on Tuesday it recorded exactly 0.5 cms. How much rain fell the last two days?

Student Text: Systematic Review 4D

Add the decimal numbers.

1.
$$\begin{array}{r} 1.5 \\ +\ 9.3 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 5.9 \\ +\ 1.6 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 6.3\ 4 \\ +\ 2.4\ 1 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 1.8\ 2 \\ +\ 9.3 \\ \hline \end{array}$$

Rewrite each number without an exponent.

5. $2^3 = $ _____

6. $6^2 = $ _____

7. $10^4 = $ _____

8. $7^2 = $ _____

Write in expanded notation.

9. 176.21 = _____

10. .685 = _____

11. 4.5 = _____

Student Text: Systematic Review 4D

Fill in the missing numbers to make equivalent fractions.

12. $\dfrac{1}{4} = \dfrac{}{8} = \dfrac{3}{} = \dfrac{}{16}$

13. $\dfrac{5}{8} = \dfrac{}{} = \dfrac{15}{24} = \dfrac{}{}$

QUICK REVIEW

Fractions with the same denominator may be added by adding the numerators. The "rule of four" is a four-step process for finding a common denominator for two fractions with different denominators. Once the fractions have a common denominator, it is easy to add the fractions by adding the denominators.

EXAMPLE

STEP 1: 3 X 4 = 12
STEP 2: 3 X 1 = 3
STEP 3: 4 X 3 = 12
STEP 4: 4 X 2 = 8

$8 \quad \quad \quad 3$

$\dfrac{2}{3} + \dfrac{1}{4}$

$12 \quad \quad \quad 12$
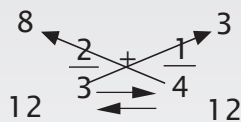
$\dfrac{8}{12} + \dfrac{3}{12} = \dfrac{11}{12}$

Add. Reduce your answer if possible.

14. $\dfrac{1}{4} + \dfrac{3}{5} = \dfrac{}{}$

15. $\dfrac{3}{4} + \dfrac{1}{6} = \dfrac{}{}$

16. $\dfrac{1}{3} + \dfrac{2}{5} = \dfrac{}{}$

17. Peter is 75.25 cms tall, but Steve is 1.75 cms taller.
How tall is Steve?

18. Mom bought a bag of 12 apples. She discovered that 1/6 of the apples were spoiled.

How many apples were spoiled?

How many good apples does Mom have?

Student Text: Systematic Review 4E

Add the decimal numbers.

1. $\begin{array}{r} 8.6 \\ + 2.4 \\ \hline \end{array}$

2. $\begin{array}{r} 3.0 \\ + 4.4 \\ \hline \end{array}$

3. $\begin{array}{r} 3.0\ 7 \\ + 9.2\ 5 \\ \hline \end{array}$

4. $\begin{array}{r} 5.0\ 0 \\ + 3.2\ 4 \\ \hline \end{array}$

Rewrite each number without an exponent.

5. $3^4 =$ _____

6. $5^2 =$ _____

7. $1^7 =$ _____

8. $10^3 =$ _____

Write in exponential notation.

9. 43.3 = _____

10. 6.105 = _____

11. 200.34 = _____

Student Text: Systematic Review 4E

Fill in the missing numbers to make equivalent fractions.

12. $\dfrac{1}{2} = \dfrac{}{4} = \dfrac{3}{} = \dfrac{}{8}$

13. $\dfrac{9}{10} = \dfrac{}{} = \dfrac{}{30} = \dfrac{}{}$

Add. Reduce your answer if possible.

14. $\dfrac{1}{9} + \dfrac{1}{2} = \underline{\quad}$

15. $\dfrac{2}{5} + \dfrac{5}{6} = \underline{\quad}$

16. $\dfrac{1}{10} + \dfrac{2}{3} = \underline{\quad}$

17. Fred spent .5 hours plowing the snow from his parking lot and .25 hours shoveling the snow from his front walk. How many hours did Fred spend in snow removal?

18. Blake bought 9.5 litres of petrol for his car and 11.6 litres for his wife's car. How many litres of petrol did Blake buy altogether?

19. Oscar got 2/3 of his math problems correct. After checking his work he had another 1/5 correct. What part of his math problems are now correct?

20. If Oscar (#19) had 30 math problems in all, how many were correct when he finished checking his work?

Student Text: Systematic Review 4F

Add the decimal numbers.

1.   5.6
        + 4.3

2.   1.9
        + 9.2

3.   5.1 3
        + 9.5 0

4.   4.1 7
        + 1.9 5

Rewrite each number without an exponent.

5. 8^2 = _____

6. 10^0 = _____

7. 4^3 = _____

8. 9^2 = _____

Write in standard notation.

9. $9 \times 10^3 + 5 \times 10^2 + 1 \times \dfrac{1}{10^1}$ = _____

10. $1 \times 10^2 + 5 \times 10^1 + 8 \times 10^0 + 4 \times \dfrac{1}{10^3}$ = _____

Student Text: Systematic Review 4F

Fill in the missing numbers to make equivalent fractions.

11. $\dfrac{1}{3} = \dfrac{}{} = \dfrac{3}{} = \dfrac{}{12}$

12. $\dfrac{3}{7} = \dfrac{}{} = \dfrac{}{21} = \dfrac{}{}$

Add. Reduce your answer if possible.

13. $\dfrac{2}{7} + \dfrac{1}{8} = \dfrac{}{}$

14. $\dfrac{3}{5} + \dfrac{2}{9} = \dfrac{}{}$

15. $\dfrac{3}{4} + \dfrac{1}{5} = \dfrac{}{}$

16. Bria spent \$2.25 on a litre of milk and \$1.69 on a loaf of bread. How much did Bria spend in all?

17. John made \$4.00 selling lemonade one day. That evening, he got his allowance of \$2.50. He already had \$8.35 in his savings bank. How much money does John have in all?

18. Dad said that Jeremy must mow 5/15 of the lawn. How many thirds of the lawn must he mow?

19. At the party, Kelsey ate 3/8 of a pizza and Riley ate 1/3. Did they eat a whole pizza?

20. Twenty-seven players tried out for the team, but only 5/9 of them were chosen. How many were chosen?

Test Booklet: Lesson 4 Test

Add the decimal numbers.

1.
$$\begin{array}{r} 6.7 \\ + 5.4 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2.0 \\ + .2 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 6.2\ 4 \\ + 8.4\ 0 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 5.2\ 8 \\ + 2.0\ 5 \\ \hline \end{array}$$

Rewrite each number without an exponent.

5. 1^3 = _____

6. 10^2 = _____

7. 6^3 = _____

8. 7^2 = _____

Write in standard notation.

9. $8 \times 10^3 + 4 \times 10^2 + 2 \times \dfrac{1}{10^1}$ = _____

10. $2 \times 10^2 + 6 \times 10^1 + 9 \times 10^0 + 5 \times \dfrac{1}{10^3}$ = _____

Fill in the missing numbers to make equivalent fractions.

11. $\dfrac{4}{5} = \dfrac{\quad}{\quad} = \dfrac{12}{\quad} = \dfrac{\quad}{20}$

12. $\dfrac{5}{9} = \dfrac{\quad}{\quad} = \dfrac{\quad}{27} = \dfrac{\quad}{\quad}$

Test Booklet: Lesson 4 Test

Add. Reduce your answer if possible.

13. $\dfrac{1}{6} + \dfrac{2}{9} = $ ——

14. $\dfrac{1}{5} + \dfrac{7}{10} = $ ——

15. $\dfrac{1}{3} + \dfrac{3}{8} = $ ——

6. Fritha has $4.75 and Rachel has $6.29. Do they have enough money to buy a game that costs $11.00?

17. Gary plans to buy a diamond necklace for his wife. The jeweler showed him the diamonds he wants to use for the necklace. They weighed 1.2 carats, .75 carats, and 1.15 carats. What was the total weight of the three diamonds?

18. Matt must use 4/10 of his income for rent. How many fifths of his income is that?

19. Tess did 5/8 of the chores and Dustin did 1/6 of them. What part of the chores have been done?

20. It rained for 3/5 of the days in April this year. Since there are 30 days in April, how many days did it rain?

Solutions: Lesson 4

Lesson Practice 4A

1. done
2. done
3.   1.53
    +1.12
    2.65

4.   2.17
    + .31
    2.48

5.   1.8
    +1.0
    2.8

6.   3.2
    + .4
    3.6

7.   ¹
    1.13
    +1.68
    2.81

8.   ¹
    1.67
    + .42
    2.09

9.   1.5
    +1.2
    2.7

10.   2.1
    + .8
    2.9
        ¹

11.   1.16
    +1.46
    2.62

12.   3.90
    + .02
    3.92

13.   ¹
    2.6
    +1.5
    4.1

14.   ¹
    1.8
    +1.3
    3.1

15.   3.00
    +1.62
    4.62

16.   4.48
    + .10
    4.58

17. $4.51
    +$ .35
    $4.86

18.   ¹
    1.5
    +2.72
    4.22 km

Solutions: Lesson 4

Lesson Practice 4B

1.
```
   ¹
   7.1
 + 6.2
  13.3
```

2.
```
   ¹
   5.9
 +1.2
   7.1
```

3.
```
   ¹
   2.45
 +5.07
   7.52
```

4.
```
   ¹
   4.13
 +1.96
   6.09
```

5.
```
   7.0
 +2.8
   9.8
```

6.
```
   1.5
 + 9.3
  10.8
```

7.
```
   ¹
   8.84
 + 3.09
  11.93
```

8.
```
   .437
 +.250
   .687
```

9.
```
   ¹
   8.8
 + 3.4
  12.2
```

10.
```
   6.2
 + .4
   6.6
```

11.
```
   ¹
   2.70
 + 9.41
  12.11
```

12.
```
   ¹
   5.52
 + .60
   6.12
```

13.
```
   3.9
 +4.0
   7.9
```

14.
```
   ¹
   7.5
 + .8
   8.3
```

15.
```
   4.15
 +3.00
   7.15
```

16.
```
   ¹¹
   .524
 +.277
   .801
```

17.
```
    ¹
  $12.95
 + 15.50
  $28.45
```

18.
```
    ¹
   .625
 +2.125
  2.750  litres
```

Lesson Practice 4C

1.
```
   ¹
   3.0
 + 9.8
  12.8
```

2.
```
   7.1
 +1.3
   8.4
```

3.
```
   ¹ ¹
   1.95
 + 8.15
  10.10
```

4.
```
   ¹
   3.51
 +2.68
   6.19
```

5.
```
   ¹
   5.9
 + .4
   6.3
```

6.
```
   4.1
 +3.0
   7.1
```

7.
```
   ¹
   2.34
 + .71
   3.05
```

8.
```
   .440
 +.300
   .740
```

9.
```
   ¹
   6.5
 + 5.0
  11.5
```

Solutions: Lesson 4

10.
$$\begin{array}{r} {}^{1} \\ 2.8 \\ +5.9 \\ \hline 8.7 \end{array}$$

11.
$$\begin{array}{r} {}^{1}\ {}^{1} \\ 7.48 \\ +1.93 \\ \hline 9.41 \end{array}$$

12.
$$\begin{array}{r} .162 \\ +8.000 \\ \hline 8.162 \end{array}$$

13.
$$\begin{array}{r} 8.7 \\ +\ 8.1 \\ \hline 16.8 \end{array}$$

14.
$$\begin{array}{r} 6.0 \\ +\ .1 \\ \hline 6.1 \end{array}$$

15.
$$\begin{array}{r} {}^{1} \\ .731 \\ +\ .402 \\ \hline 1.133 \end{array}$$

16.
$$\begin{array}{r} 1.125 \\ +\ .112 \\ \hline 1.237 \end{array}$$

17.
$$\begin{array}{r} 4.3 \\ +\ .5 \\ \hline 4.8 \text{ kg} \end{array}$$

18.
$$\begin{array}{r} 2.045 \\ +\ .5 \\ \hline 2.545 \text{ cm} \end{array}$$

Systematic Review 4D

1.
$$\begin{array}{r} {}^{1} \\ 1.5 \\ +\ 9.3 \\ \hline 10.8 \end{array}$$

2.
$$\begin{array}{r} {}^{1} \\ 5.9 \\ +1.6 \\ \hline 7.5 \end{array}$$

3.
$$\begin{array}{r} 6.34 \\ +2.41 \\ \hline 8.75 \end{array}$$

4.
$$\begin{array}{r} {}^{1} \\ 1.82 \\ +\ 9.3 \\ \hline 11.12 \end{array}$$

5. $2^3 = 8$

6. $6^2 = 36$

7. $10^4 = 10\,000$

8. $7^2 = 49$

9. $1 \times 100 + 7 \times 10 + 6 \times 1 + 2 \times \dfrac{1}{10} + 1 \times \dfrac{1}{100}$

10. $6 \times \dfrac{1}{10} + 8 \times \dfrac{1}{100} + 5 \times \dfrac{1}{1000}$

11. $4 \times 1 + 5 \times \dfrac{1}{10}$

12. $\dfrac{1}{4} = \dfrac{2}{8} = \dfrac{3}{12} = \dfrac{4}{16}$

13. $\dfrac{5}{8} = \dfrac{10}{16} = \dfrac{15}{24} = \dfrac{20}{32}$

14. $\dfrac{1}{4} + \dfrac{3}{5} = \dfrac{5}{20} + \dfrac{12}{20} = \dfrac{17}{20}$

15. $\dfrac{3}{4} + \dfrac{1}{6} = \dfrac{18}{24} + \dfrac{4}{24} = \dfrac{22}{24} = \dfrac{11}{12}$

16. $\dfrac{1}{3} + \dfrac{2}{5} = \dfrac{5}{15} + \dfrac{6}{15} = \dfrac{11}{15}$

17.
$$\begin{array}{r} {}^{1} \\ 188.13 \\ +\ \ 4.38 \\ \hline 192.51 \text{ cm} \end{array}$$

18. $12 \div 6 = 2$ spoiled apples
    $12 - 2 = 10$ good apples

Systematic Review 4E

1.
$$\begin{array}{r} {}^{1}\ {}^{1} \\ 8.6 \\ +\ 2.4 \\ \hline 11.0 \end{array}$$

2.
$$\begin{array}{r} 3.0 \\ +4.4 \\ \hline 7.4 \end{array}$$

3.
$$\begin{array}{r} {}^{1}\ {}^{1} \\ 3.07 \\ +\ 9.25 \\ \hline 12.32 \end{array}$$

4.
$$\begin{array}{r} 5.00 \\ +3.24 \\ \hline 8.24 \end{array}$$

5. $3^4 = 81$

6. $5^2 = 25$

7. $1^7 = 1$

8. $10^3 = 1000$

9. $4 \times 10^1 + 3 \times 10^0 + 3 \times \dfrac{1}{10^1}$

10. $6 \times 10^0 + 1 \times \dfrac{1}{10^1} + 5 \times \dfrac{1}{10^3}$

11. $2 \times 10^2 + 3 \times \dfrac{1}{10^1} + 4 \times \dfrac{1}{10^2}$

Solutions: Lesson 4

12. $\dfrac{1}{2} = \dfrac{2}{4} = \dfrac{3}{6} = \dfrac{4}{8}$

13. $\dfrac{9}{10} = \dfrac{18}{20} = \dfrac{27}{30} = \dfrac{36}{40}$

14. $\dfrac{1}{9} + \dfrac{1}{2} = \dfrac{2}{18} + \dfrac{9}{18} = \dfrac{11}{18}$

15. $\dfrac{2}{5} + \dfrac{5}{6} = \dfrac{12}{30} + \dfrac{25}{30} = \dfrac{37}{30} = 1\dfrac{7}{30}$

16. $\dfrac{1}{10} + \dfrac{2}{3} = \dfrac{3}{30} + \dfrac{20}{30} = \dfrac{23}{30}$

17.
$$\begin{array}{r} .5 \\ +.25 \\ \hline .75 \text{ hours} \end{array}$$

18.
$$\begin{array}{r} {}^{1\ 1}\ \ \\ 9.5 \\ +11.6 \\ \hline 21.1 \text{ litres} \end{array}$$

19. $\dfrac{2}{3} + \dfrac{1}{5} = \dfrac{10}{15} + \dfrac{3}{15} = \dfrac{13}{15}$ of the problems

20. $30 \div 15 = 2;$
$2 \times 13 = 26$ problems

14. $\dfrac{3}{5} + \dfrac{2}{9} = \dfrac{27}{45} + \dfrac{10}{45} = \dfrac{37}{45}$

15. $\dfrac{3}{4} + \dfrac{1}{5} = \dfrac{15}{20} + \dfrac{4}{20} = \dfrac{19}{20}$

16.
$$\begin{array}{r} {}^{1}\ \ \\ \$2.25 \\ +\$1.69 \\ \hline \$3.94 \end{array}$$

17.
$$\begin{array}{r} {}^{1}\ \ \ \\ \$\ 4.00 \\ \$\ 2.50 \\ +\$\ 8.35 \\ \hline \$14.85 \end{array}$$

18. $\dfrac{5}{15} = \dfrac{1}{3}$

19. $\dfrac{3}{8} + \dfrac{1}{3} = \dfrac{9}{24} + \dfrac{8}{24} = \dfrac{17}{24}$; no

20. $27 \div 9 = 3;$
$3 \times 5 = 15$ players

Systematic Review 4F

1.
$$\begin{array}{r} 5.6 \\ +4.3 \\ \hline 9.9 \end{array}$$

2.
$$\begin{array}{r} {}^{1\ 1}\ \ \\ 1.9 \\ +\ 9.2 \\ \hline 11.1 \end{array}$$

3.
$$\begin{array}{r} {}^{1}\ \ \ \\ 5.13 \\ +\ 9.50 \\ \hline 14.63 \end{array}$$

4.
$$\begin{array}{r} {}^{1\ 1}\ \ \\ 4.17 \\ +1.95 \\ \hline 6.12 \end{array}$$

5. $8^2 = 64$

6. $10^0 = 1$

7. $4^3 = 64$

8. $9^2 = 81$

9. 9500.1

10. 158.004

11. $\dfrac{1}{3} = \dfrac{2}{6} = \dfrac{3}{9} = \dfrac{4}{12}$

12. $\dfrac{3}{7} = \dfrac{6}{14} = \dfrac{9}{21} = \dfrac{12}{28}$

13. $\dfrac{2}{7} + \dfrac{1}{8} = \dfrac{16}{56} + \dfrac{7}{56} = \dfrac{23}{56}$

Solutions: Lesson 4 Test

Test 4

1.
$$\begin{array}{r} \overset{1}{}6.7 \\ +\ 5.4 \\ \hline 12.1 \end{array}$$

2.
$$\begin{array}{r} 2.0 \\ +\ .2 \\ \hline 2.2 \end{array}$$

3.
$$\begin{array}{r} 6.24 \\ +\ 8.40 \\ \hline 14.64 \end{array}$$

4.
$$\begin{array}{r} \overset{1}{}5.28 \\ +2.05 \\ \hline 7.33 \end{array}$$

5. $1 \times 1 \times 1 = 1$

6. $10 \times 10 = 100$

7. $6 \times 6 \times 6 = 216$

8. $7 \times 7 = 49$

9. 8400.2

10. 269.005

11. $\dfrac{4}{5} = \dfrac{8}{10} = \dfrac{12}{15} = \dfrac{16}{20}$

12. $\dfrac{5}{9} = \dfrac{10}{18} = \dfrac{15}{27} = \dfrac{20}{36}$

13. $\dfrac{1}{6} + \dfrac{2}{9} = \dfrac{9}{54} + \dfrac{12}{54} = \dfrac{21}{54} = \dfrac{7}{18}$

14. $\dfrac{1}{5} + \dfrac{7}{10} = \dfrac{10}{50} + \dfrac{35}{50} = \dfrac{45}{50} = \dfrac{9}{10}$

15. $\dfrac{1}{3} + \dfrac{3}{8} = \dfrac{8}{24} + \dfrac{9}{24} = \dfrac{17}{24}$

16. $\$4.75 + \$6.30 = \$11.05$
    $\$11.05 > \$11.00$; yes

17. $1.2 + 0.75 + 1.15 = 3.1$ carats

18. $\dfrac{4}{10} = \dfrac{2}{5}$

19. $\dfrac{5}{8} + \dfrac{1}{6} = \dfrac{30}{48} + \dfrac{8}{48} = \dfrac{38}{48} = \dfrac{19}{24}$

20. $30 \div 5 = 6$
    $6 \times 3 = 18$ days

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