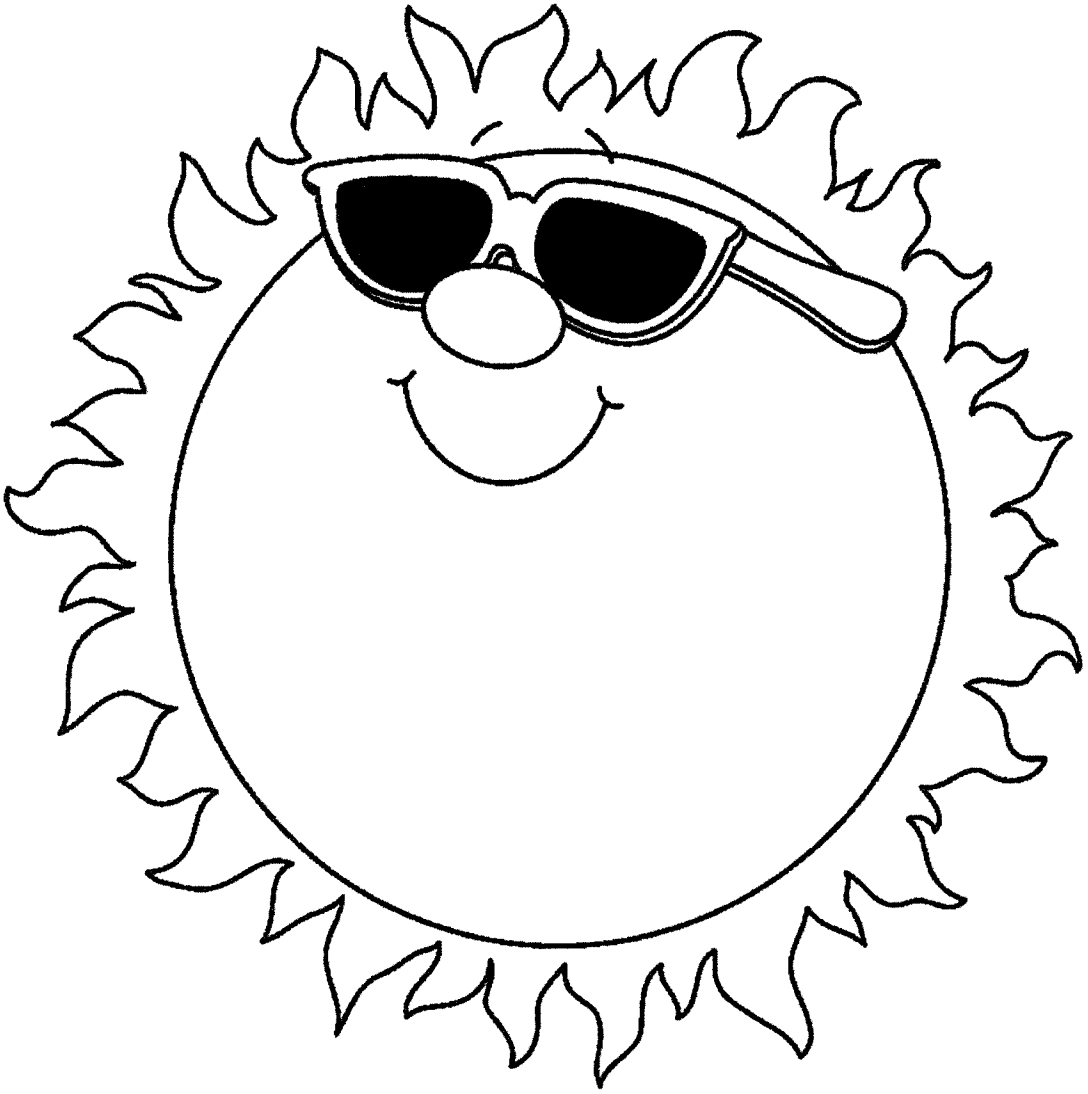
# DCES Summer Math for students entering 7th Grade

**Name:** _____



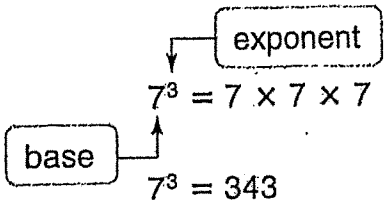
School's out for summer but don't let those math skills slide! Your teachers have carefully chosen a collection of practice activities that cover a range of content that you have learned this school year. There are 16 pages in all, so 1-2 pages per week throughout the summer will have you all set for next school year; spread it out for best results. Remember, you still have access to digital resources like Freckle, IXL, etc. until the end of July, but if you need more support, ask your parents to sit with you or do an internet search for an instructional video that covers the topic. You will turn in your math packet for practice points to your math teacher in August. We hope you have a safe, blessed and MATH-TASTIC summer break!

# Exponents

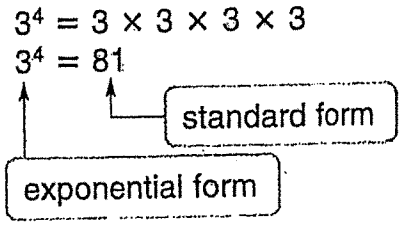
Name _____

Date _____

An *exponent* tells how many times to use the *base* as a factor.




Read $7^3$ as:
"7 cubed,"
"7 to the third power," or
"the third power of 7."




**Write each product in exponential form.**

1. $5 \times 5 \times 5 \times 5 \times 5 \times 5$ _____

2. $21 \times 21 \times 21 \times 21$ _____

3. $3 \times 3 \times 3 \times 3 \times 3$ _____

4. $7 \times 7 \times 7 \times 7 \times 7 \times 7 \times 7 \times 7 \times 7 \times 7$ _____

5. $12 \times 12 \times 12 \times 12 \times 12 \times 12 \times 12 \times 12$ _____

**Write the standard form for each.**

6. $8^4$ _____

7. $9^2$ _____

8. $5^3$ _____

9. $6^0$ _____

10. 13 cubed _____

11. 9 to the $4^{th}$ power _____

12. 16 squared _____

13. the $2^{nd}$ power of 18 _____

**Write the missing exponents.**

14. $8^x = 64$ _____

15. $12^y = 1$ _____

16. $10^n = 100{,}000$ _____

17. $11^a = 1331$ _____

**Compare. Write <, =, or >.**

18. $3^5$ _____ $4^3$

19. $2^4$ _____ $4^2$

20. $5^4$ _____ $25^1$

21. $8^3$ _____ $22^2$

## Problem Solving

22. There are $5^5$ students at West High School and $4^6$ students at East High School. How many students are at both schools combined?

_____



© Use with Lesson 2-5, pages 74–75 in the Student Book.

# Evaluate Algebraic Expressions

Name _____ 2

Date _____

Evaluate $8 + x^4 - k$, when $x = 3$ and $k = 6$.

$8 + 3^4 - 6$ ← Replace $x$ with 3 and $k$ with 6.

$8 + 81 - 6$ ← Simplify using the order of operations.

$89 - 6$ ↓

$83$ ← value of the expression

Evaluate $2y + 15 - 0.5y$, when $y = 5$.

$(2y - 0.5y) + 15$ ← Combine like terms.

$1.5y + 15$ ← Simplify.

$1.5 \cdot 5 + 15$ ← Replace $y$ with 5.

$22.5$ ← value of the expression

**Evaluate each expression.**

1. $95 - a(b + c)$, when $a = 9$, $b = 3$, and $c = 7.4$ _____
2. $(j - 2)^3 + k \div l$, when $j = 9$, $k = 4.5$, and $l = 3$ _____
3. $(1.42 + t) \times u + \frac{0.42}{v}$, when $t = 13.5$, $u = 7$, and $v = 6$ _____
4. $(g + h \times 7)^2 - 12i$, when $g = 8$, $h = 1$, and $i = 3$ _____

**Simplify by combining like terms. Then evaluate the expression for the given value of the variable.**

5. $30y - 5y - 8$, when $y = 3$ _____
6. $9g^3 + 8g^3 + 743$, when $g = 2$ _____
7. $6s^4 - 9s^2 - 2s^4$, when $s = 5$ _____
8. $17p + 8p - 91 + 12q$, when $p = 11$ and $q = 9$ _____

**Problem Solving** **Write and evaluate an algebraic expression.**

9. Dora buys some T-shirts for $8.75 each and a pair of shoes for $27.50. If she buys 4 T-shirts, how much money does she spend in all? _____
10. Rich buys 3 packages of paper plates for the carnival. He also rents a picnic table for $180. How much money does Rich spend in all if the paper plates cost $1.95 per package? _____



Use with Lesson 4-3, pages 126–127 in the Student Book.

# Multiply and Divide by Positive Powers of Ten (A)

Find each product or quotient.

$9.15 \div 10^3 =$

$9.7 \times 10^1 =$

$0.3 \div 10^3 =$

$2.134 \div 10^2 =$

$2.4784 \times 10^3 =$

$2.318 \div 10^3 =$

$5.615 \div 10^1 =$

$7.5077 \div 10^3 =$

$9.8116 \times 10^2 =$

$7.7169 \div 10^1 =$

# Converting Fractions (A)

Name: _____ Date: _____

Convert mixed to improper fractions and improper to mixed fractions.

$\frac{10}{3} =$ _ $\frac{19}{4} =$ _ $1\frac{5}{9} =$ _ $\frac{82}{15} =$ _

$4\frac{11}{12} =$ _ $1\frac{5}{12} =$ _ $4\frac{9}{10} =$ _ $6\frac{5}{7} =$ _

$9\frac{8}{15} =$ _ $1\frac{7}{9} =$ _ $\frac{43}{7} =$ _ $6\frac{1}{6} =$ _

$8\frac{2}{9} =$ _ $\frac{97}{10} =$ _ $1\frac{3}{10} =$ _ $\frac{49}{5} =$ _

* need common denominators * 4

## Adding and Subtracting Fractions (A)

Find the value of each expression in lowest terms.

1. $\frac{7}{4} - \frac{8}{5}$

2. $\frac{23}{2} + \frac{9}{4}$

5. $\frac{3}{2} - \frac{9}{7}$

6. $\frac{7}{10} + \frac{2}{5}$

9. $\frac{4}{3} - \frac{2}{5}$

10. $\frac{5}{2} + \frac{2}{3}$

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## Adding and Subtracting Mixed Fractions (A)

Find the value of each expression in lowest terms.

1. $2\frac{1}{5} + 1\frac{3}{4}$

2. $3\frac{1}{2} - 2\frac{2}{3}$

5. $1\frac{1}{2} + 2\frac{3}{5}$

6. $3\frac{1}{2} - 2\frac{5}{9}$

9. $3\frac{1}{2} - 1\frac{1}{2}$

10. $5\frac{1}{2} + 5\frac{1}{4}$

## Multiplying and Dividing Fractions (A)

Find the value of each expression in lowest terms.

1. $\frac{1}{2} \times \frac{5}{4}$
2. $\frac{1}{6} \div \frac{8}{11}$
3. $\frac{1}{3} \div \frac{13}{9}$
6. $\frac{1}{4} \times \frac{5}{3}$
7. $\frac{11}{2} \div \frac{1}{2}$
8. $\frac{4}{3} \div \frac{11}{12}$
11. $\frac{10}{3} \times \frac{11}{6}$
12. $\frac{1}{2} \div \frac{1}{2}$
13. $\frac{14}{9} \times \frac{7}{10}$

## Multiplying and Dividing Mixed Fractions (A)

Find the value of each expression in lowest terms.

1. $3\frac{2}{7} \div 1\frac{1}{4}$
2. $1\frac{2}{3} \div 3\frac{1}{3}$
3. $2\frac{1}{4} \div 1\frac{1}{2}$
6. $1\frac{1}{3} \times 1\frac{2}{3}$
7. $1\frac{1}{3} \times 2\frac{1}{5}$
8. $2\frac{1}{7} \div 2\frac{1}{2}$
11. $1\frac{3}{8} \div 1\frac{1}{12}$
12. $2\frac{7}{8} \div 5\frac{1}{2}$
13. $3\frac{2}{3} \div 1\frac{1}{6}$

# Addition Equations

Name _____ 6

Date _____

Solve: $38.6 = h + 5.7 + 19.8$

$38.6 = h + 5.7 + 19.8$ ← Simplify by adding the numbers on one side.

$38.6 = h + 25.5$

$38.6 - 25.5 = h + 25.5 - 25.5$ ← Subtract 25.5 from both sides to isolate the variable.

$13.1 = h$

**Solve and check.**

1. $7 + y = 25$ _____
2. $1.5 = s + 0.3$ _____
3. $p + 22 = 64$ _____
4. $50 = b + 25$ _____
5. $p + 86 = 100$ _____
6. $x + 0.5 = 1$ _____
7. $h + \$3.85 = \$7.50$ _____
8. $k + 7 = 77$ _____
9. $r + \$.80 = \$1.80$ _____
10. $\$18.50 + a = \$30$
11. $1.09 + b = 4.6$
12. $d + 10.1 = 92$

# Subtraction Equations

Name _____

Date _____

Solve: $s - 23.5 = 82$

$s - 23.5 + 23.5 = 82 + 23.5$ ← Add 23.5 to both sides to isolate the variable.

$s = 105.5$

Check:

$105.5 - 23.5 = 82$

$82 = 82$ True

**Solve and check.**

1. $d - 6 = 33$ _____
2. $12 = z - 10$ _____
3. $\$45.58 - e = \$19.95$ _____
4. $f - 4.1 = 8.6$ _____
5. $j - \$2.10 = \$7.01$ _____
6. $a - 15 = 0$ _____
7. $h - 53 = 25$ _____
8. $c - 72 = 34$ _____
9. $b - 82.6 = 6.45$ _____
10. $u - \$4.87 = \$.12$ _____
11. $m - 19 = 11$ _____
12. $v - (\$0.65 + \$5.74) = \$8.53$ _____
13. $g - 4.7 = 5.91$ _____
14. $y - 104 = 23$ _____
15. $187 = t - (704 + 59)$ _____
16. $73.4 - k = 62.7$
17. $h - 37 = 279$
18. $(6.13 + 2.46) - s = 3.86$

# Multiplication and Division Equations

Name _____ 7

Date _____

Solve: $4n = 36$

- Divide both sides by 4 to isolate the variable.

$4n \div 4 = 36 \div 4$

$n = 9$

Solve: $x \div 5 = 3.45$

- Multiply both sides by 5 to isolate the variable.

$x \div 5 \cdot 5 = 3.45 \cdot 5$

$x = 17.25$

**Solve and check.**

1. $r \div 6 = 10$ _____
2. $8 \cdot w = 120$ _____
3. $15 = \frac{e}{0.5}$ _____
4. $8m = 40$ _____
5. $x \div 6 = 6$ _____
6. $9 = t \div 8$ _____
7. $12 = \frac{1}{2}x$ _____
8. $\frac{b}{5} = 15$ _____
9. $3 = \frac{s}{0.3}$ _____
10. $\frac{y}{19} = \$85$ _____
11. $\frac{\$385}{k} = \$5$ _____
12. $h \cdot \$250 = \$50$ _____
13. $720 = 9t$ _____
14. $4.15 = \frac{c}{0.13}$ _____
15. $4.52u = 31.64$ _____
16. $d \div 23 = 6.2$ _____
17. $9.12 \div s = 2.4$ _____
18. $324 = 4a$ _____

**Write and solve an equation.**

19. A number $m$ divided by 3.25 is equal to 64.

_____

20. Four tenths multiplied by a number $z$ is equal to six and five tenths.

_____

21. The quotient of a number $n$ and seventeen is two hundred eighty-three.

_____

22. The factors are twenty-one and $g$. The product is forty-eight and three tenths.

_____

**Problem Solving** **Write an equation for each. Then solve.**

23. Hank bought 5 CDs for $64.75. If each CD cost the same price, how much did each cost?

_____

24. It is 25.8 miles from Sandra's house to her grandparents' house. This is one fourth the distance from Sandra's house to her cousins' house. How far is it from Sandra's to her cousins'?

_____

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Use with Lesson 4-7, pages 134–135 in the Student Book.
Then go to Lesson 4-7A, pages 219–220 in this Workbook.

# Addition and Subtraction Equations with Fractions

Name _____

Date _____

8

Solve: $d + 3\frac{1}{9} + 5\frac{4}{9} = 10\frac{8}{9}$

- Simplify by adding the numbers on one side.
- Subtract $8\frac{5}{9}$ from both sides to isolate the variable.
- Simplify.

$$d + 8\frac{5}{9} = 10\frac{8}{9}$$

$$d + 8\frac{5}{9} - 8\frac{5}{9} = 10\frac{8}{9} - 8\frac{5}{9}$$

$$d = 2\frac{3}{9} = 2\frac{1}{3}$$

Solve equations with fractions the same way as with whole numbers.

**Solve and check.**

1. $6\frac{2}{9} + x = 12\frac{2}{3}$ _____
2. $5\frac{1}{6} - u = 2\frac{3}{4}$ _____
3. $g + 9\frac{3}{4} = 15\frac{1}{2}$ _____
4. $h - 9\frac{6}{7} = 5\frac{3}{7}$ _____
5. $6\frac{2}{9} + r = 10\frac{1}{2}$ _____
6. $s - \frac{5}{6} = 9\frac{2}{5}$ _____
7. $2\frac{2}{3} + a = 7\frac{1}{8}$ _____
8. $n - 6\frac{1}{4} = 3\frac{5}{6}$ _____
9. $c + 1\frac{7}{8} = 12\frac{1}{2}$ _____

# Multiplication and Division Equations with Fractions

Name _____

Date _____

Solve: $d \div \frac{4}{5} = 12\frac{1}{2}$

$d \div \frac{4}{5} \times \frac{4}{5} = 12\frac{1}{2} \times \frac{4}{5}$ ← Isolate the variable.

$d = \frac{25}{2} \times \frac{4}{5}$ ← Compute to solve.

$d = \frac{\overset{5}{\cancel{25}}}{\underset{1}{\cancel{2}}} \times \frac{\overset{2}{\cancel{4}}}{\underset{1}{\cancel{5}}} = \frac{10}{1}$

$d = 10$

Solve: $\frac{2}{5}f + \frac{2}{5}f = \frac{9}{10}$

$\frac{4}{5}f = \frac{9}{10}$ ← Combine like terms.

$\frac{4}{5}f \div \frac{4}{5} = \frac{9}{10} \div \frac{4}{5}$ ← Isolate the variable.

$f = \frac{9}{10} \times \frac{5}{4}$ ← Compute to solve.

$f = \frac{9}{\underset{2}{\cancel{10}}} \times \frac{\overset{1}{\cancel{5}}}{4} = \frac{9}{8}$

$f = 1\frac{1}{8}$

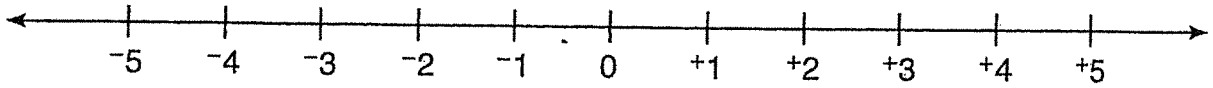
**Solve for x.**

1. $\frac{2}{5}x = 48$ _____
2. $35x = \frac{7}{10}$ _____
3. $x \div \frac{7}{8} = 64$ _____
4. $x \div 8\frac{8}{9} = 9$ _____
5. $6\frac{1}{3}x = 2\frac{1}{2}$ _____
6. $x \div 1\frac{1}{4} = 3\frac{3}{5}$ _____
7. $\frac{6}{11}x = 7\frac{1}{5}$ _____
8. $x \div 3\frac{3}{4} = 1\frac{7}{25}$ _____
9. $\frac{4}{9}x = \frac{8}{27}$ _____

# Compare and Order Integers

Name _____ 9

Date _____




**Compare integers**

- Any integer is less than an integer to its right: $^{-}4 < ^{-}2$
- Any integer is greater than an integer to its left: $^{-}1 > ^{-}5$

**Order integers**

- Least to greatest: $^{-}5, ^{-}1, ^{+}2$
  Begin with integer farthest to the left.
- Greatest to least: $^{+}2, ^{-}1, ^{-}5$
  Begin with the integer farthest to the right.

**Circle the greater integer. Use a number line to help.**

1. $^{+}8, ^{+}6$
2. $^{-}1, ^{-}4$
3. $^{-}3, ^{+}2$
4. $^{+}5, ^{-}5$
5. $^{-}6, ^{-}7$
6. $^{-}3, 0$
7. $^{+}1, ^{-}4$
8. $0, ^{+}4$

**Compare. Write <, =, or >.**

9. $^{+}6$ ____ $^{+}10$
10. $^{-}6$ ____ $^{-}3$
11. $^{+}10$ ____ $^{+}10$
12. $^{-}2$ ____ $0$
13. $^{+}5$ ____ $0$
14. $^{-}7$ ____ $^{+}7$
15. $^{+}4$ ____ $^{-}4$
16. $^{+}3$ ____ $^{-}1$
17. $^{+}7$ ____ $^{-}4$
18. $^{+}9$ ____ $0$
19. $^{-}5$ ____ $^{+}2$
20. $0$ ____ $0$
21. $^{+}2$ ____ $^{+}8$
22. $^{-}5$ ____ $^{-}1$
23. $^{-}6$ ____ $^{-}3$
24. $^{+}4$ ____ $0$

**Write in order from least to greatest.**

25. $0, ^{-}2, ^{+}4$ _____
26. $^{-}4, ^{+}6, ^{+}5$ _____
27. $^{+}10, ^{-}2, ^{+}6$ _____
28. $^{-}1, ^{-}9, ^{-}8, ^{+}2$ _____
29. $^{-}7, 0, ^{-}3, ^{+}2$ _____
30. $^{+}4, ^{-}1, ^{-}6$ _____
31. $^{-}2, ^{-}8, ^{-}6, ^{-}3$ _____
32. $^{+}7, ^{+}5, ^{+}1, ^{+}3$ _____

**Write in order from greatest to least.**

33. $^{-}7, ^{+}4, ^{-}5$ _____
34. $^{-}9, ^{-}10, ^{-}4$ _____
35. $0, ^{-}6, ^{-}11$ _____
36. $^{+}3, ^{+}5, ^{+}9$ _____
37. $^{+}2, ^{-}5, ^{+}8, ^{-}1$ _____
38. $^{-}3, ^{+}8, 0, ^{-}1$ _____
39. $0, ^{-}17, ^{+}2, ^{-}5$ _____
40. $^{+}1, ^{-}8, ^{+}9, ^{-}6$ _____

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Use with Lesson 5-2, pages 152–153 in the Student Book.

10

# Converting Fractions (A)

Name: _____ Date: _____

Fill in the missing values. Use part-to-**whole** ratios.

| | Fraction | Decimal | Percent | Ratio → lowest terms |
|---|---|---|---|---|
| 1. | $\frac{1}{2}$ | 0.5 | 50% | 1:2 |
| 2. | $\frac{9}{10}$ | | | |
| 3. | $\frac{3}{10}$ | | | |
| 4. | $\frac{4}{5}$ | | | |
| 5. | $\frac{3}{4}$ | | | |
| 6. | $\frac{13}{20}$ | | | |
| 7. | $\frac{5}{8}$ | | | |
| 8. | $\frac{2}{5}$ | | | |
| 9. | $\frac{3}{8}$ | | | |
| 10. | $\frac{1}{4}$ | | | |

# Solve Proportions

Name _____

Date _____

Solve the proportion: $\frac{n}{16} = \frac{5}{20}$.

**Extremes** **Means**

$\frac{n}{16} \times \frac{5}{20}$ → $n \times 20 = 16 \times 5$

$20n = 80$

$20n \div 20 = 80 \div 20$

$n = 4$

Check:

$\frac{4}{16} \stackrel{?}{=} \frac{5}{20}$ → $4 \times 20 = 16 \times 5$

$80 = 80$

**Complete to find the missing term in each proportion.**

1. $\frac{n}{8} = \frac{30}{48}$ → $n \times 48 = 8 \times 30$

$48n = 240$

$48n \div$ _____ $= 240 \div$ _____

$n =$ _____

2. $\frac{7}{n} = \frac{21}{30}$ → $7 \times 30 = n \times 21$

$210 = 21n$

$210 \div$ _____ $= 21n \div$ _____

_____ $= n$

**Find the missing term in each proportion.** Cross products are equal.

10·3 = 15·n

3. $\frac{n}{3} = \frac{10}{15}$ _____

4. $\frac{9}{10} = \frac{n}{40}$ _____

5. $\frac{n}{4} = \frac{9}{6}$ _____

6. $\frac{8}{40} = \frac{n}{20}$ _____

7. $\frac{6}{7} = \frac{n}{21}$ _____

8. $\frac{6}{9} = \frac{12}{n}$ _____

9. $\frac{8}{12} = \frac{n}{24}$ _____

10. $\frac{3}{n} = \frac{24}{16}$ _____

11. $\frac{n}{6} = \frac{35}{42}$ _____

12. $\frac{2}{n} = \frac{5}{10}$ _____

13. $\frac{3}{4} = \frac{n}{48}$ _____

14. $\frac{16}{20} = \frac{48}{n}$ _____

**Find the value of *a*.**

15. $4:a = 16:24$ _____

16. $a:7 = 7:49$ _____

17. $8:3 = a:12$ _____

18. $5:a = 15:21$ _____

19. $2:9 = 16:a$ _____

20. $a:12 = 15:60$ _____

21. $0.2:4 = a:16$ _____

22. $a:9 = 0.3:27$ _____

23. $15:5 = 4.5:a$ _____

**Circle the letters of the two ratios that form a proportion.**

24. a. $\frac{1}{3}$ b. $\frac{1}{6}$ c. $\frac{2}{6}$

25. a. $\frac{3}{8}$ b. $\frac{5}{6}$ c. $\frac{10}{12}$

26. a. $\frac{5}{10}$ b. $\frac{10}{15}$ c. $\frac{1}{2}$

27. a. $\frac{12}{30}$ b. $\frac{2}{5}$ c. $\frac{6}{5}$

28. a. $\frac{7}{8}$ b. $\frac{21}{24}$ c. $\frac{14}{21}$

29. a. $\frac{28}{30}$ b. $\frac{35}{50}$ c. $\frac{7}{10}$

30. a. $\frac{18}{81}$ b. $\frac{3}{14}$ c. $\frac{2}{9}$

31. a. $\frac{4}{16}$ b. $\frac{1}{4}$ c. $\frac{1}{8}$



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# Discount and Sale Price

Name _____ 12

Date _____

A book that costs $26.00 is being sold at a 30% rate of discount.
What is the discount? What is the sale price?

Discount = Rate of Discount × List Price

$D$ = 30% of $26.00
$D$ = 0.30 × $26.00
$D$ = $7.80

The discount on the book is $7.80.

Sale Price = List Price − Discount

$SP$ = $26.00 − $7.80
$SP$ = $18.20

The sale price of the book is $18.20.

**Find the discount and sale price.**

| | Item | List Price | Rate of Discount | Discount | Sale Price |
|---|---|---|---|---|---|
| 1. | Sweater | $80 | 25% | | |
| 2. | CD | $14 | 20% | | |
| 3. | Poster | $33 | 15% | | |
| 4. | Jacket | $120 | 12% | | |
| 5. | Computer | $1800 | 8% | | |

# Sales Tax and Total Cost

Name _____

Date _____

A shirt costs $38.95 plus 6% sales tax. What is the total cost?

Sales Tax = Rate of Sales Tax × Marked Price

$T$ = 6% of $38.95
$T$ = 0.06 × $38.95
$T$ = 2.337 ≈ $2.34.

The sales tax is $2.34.

Total Cost = Marked Price + Sales Tax

$TC$ = $38.95 + $2.34
$TC$ = $41.29

The total cost of the shirt is $41.29.

**Find the sales tax and the total cost.**

| | Item | Marked Price | Rate of Sales Tax | Sales Tax | Total Cost |
|---|---|---|---|---|---|
| 1. | Softball | $7.98 | 4% | | |
| 2. | Glove | $45.25 | 6% | | |
| 3. | Wooden Bat | $23.50 | 2% | | |
| 4. | Thermos | $18 | 5% | | |

# Better Buy

Name _____ 13

Date _____

Pens cost 4 for $4.41 or 6 for $6.03. Which is the better buy?

$\frac{4}{\$4.41} = \frac{1}{n}$

$4 \times n = \$4.41 \times 1$

$4n \div 4 = \$4.41 \div 4$

$n = \$1.1025$

$n \approx \$1.10$

$\frac{6}{\$6.03} = \frac{1}{m}$

$6 \times m = \$6.03 \times 1$

$6m \div 6 = \$6.03 \div 6$

$m = \$1.005$

$m \approx \$1.01$

$\$1.01 < \$1.10$

So 6 pens for $6.03 is a better buy.

To decide which is the better buy, find each unit cost. Then compare them.

**Which is the better buy? Explain.**

1. 3 apples for $.75
   9 apples for $2.00

   _____

2. 4 cans of juice for $3.20
   A 6-pack for $4.45

   _____

3. 1 pair of socks for $1.35
   3 pairs for $4.69

   _____

4. 1 dozen roses for $15.25
   $1.25 per rose

   _____

5. 8-oz can for 48¢
   6-oz can for 42¢

   _____

6. 2-lb box for $1.84
   5-lb box for $4.50

   _____

**Estimate using compatible numbers to find the better buy.**

7. 1 pair of socks for $2.50
   3 pairs for $9.65

   _____

8. 1 can of juice for $.85
   6 cans of juice for $4.75

   _____

9. 1 dozen rolls for $3.58
   Rolls: 35¢ each

   _____

10. 1 orange for $.35
    Bag of 6 oranges for $2.50

    _____

11. 1 dozen pencils for $3.56
    36¢ for 1 pencil

    _____

12. 10-oz box of cereal for $3.10
    15-oz box of cereal for $2.99

    _____

**Problem Solving** **Tell which is the better buy for each.**

13. A pair of jeans at Fine Fitters costs $19.95. The same jeans sell at Custom Clothes for 2 pairs for $38.95. _____

14. Soap sells for $2.15 a bar, or one box of 5 bars for $10.95. _____

15. An 8-oz can of mixed fruit costs $.83. A 14-oz can costs $1.38. _____

16. A package of 4 glasses costs $2.98. A package of 6 of the same glasses costs $4.68. _____



© Use with Lesson 12-9, pages 430–431 in the Student Book.

Name : _____ Score : 14

Teacher : _____ Date : _____

# Mean, Mode, Median, and Range

Calculator ok

1) 63, 54, 50, 82, 75, 39, 33, 91, 37, 96

Mean ____ Median ____ Mode _____ Range ____

2) 98, 97, 59, 50, 42, 91, 83, 32

Mean ____ Median ____ Mode _____ Range ____

3) 36, 61, 55, 74, 17, 89, 72, 68, 63, 87, 37, 13

Mean ____ Median ____ Mode _____ Range ____

4) 53, 53, 25, 42, 21, 37, 86, 27

Mean ____ Median ____ Mode _____ Range ____

5) 45, 16, 78, 78, 57, 84, 67, 55, 87

Mean ____ Median ____ Mode _____ Range ____

6) 86, 59, 58, 91, 30, 73, 51, 77, 44, 17, 85

Mean ____ Median ____ Mode _____ Range ____

7) 35, 76, 82, 25, 54, 89, 90, 22, 28, 59

Mean ____ Median ____ Mode _____ Range ____

8) 44, 90, 89, 45, 82, 88, 38

Mean ____ Median ____ Mode _____ Range ____

9) 54, 69, 18, 96, 25, 33, 30, 32, 95, 76, 56, 28

Mean ____ Median ____ Mode _____ Range ____

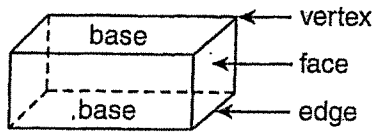
10) 51, 14, 15, 95, 47, 81, 24, 97, 71

Mean ____ Median ____ Mode _____ Range ____

# Solid Figures

Name _____ 15

Date _____



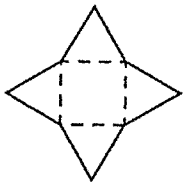

Pyramids and prisms other than cubes are named by the shape of their bases. Cylinders, cones, and spheres have curved surfaces.

**Complete the table.**

polygons corners

| | Solid Figure | Number of | | |
|---|---|---|---|---|
| | | Faces | Vertices | Edges |
| 1. | square pyramid | | | |
| 2. | rectangular pyramid | | | |
| 3. | pentagonal prism | | | |
| 4. | triangular pyramid | | | |
| 5. | rectangular prism | | | |
| 6. | pentagonal pyramid | | | |
| 7. | hexagonal prism | | | |
| 8. | triangular prism | | | |
| 9. | hexagonal pyramid | | | |

**Write the solid figure that can be made from each net.**

10. 

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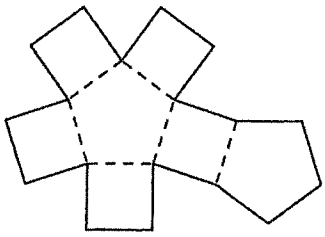
11. 

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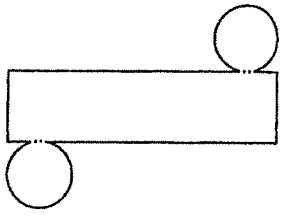
12. 

_____

**Write *True* or *False* for each statement.**

13. A square pyramid and a rectangular pyramid have the same number of faces and edges. _____

14. Three of the faces of a triangular prism are rectangles. _____

15. A hexagonal prism has 8 hexagonal faces. _____

16. A triangular pyramid has 4 triangular faces. _____

17. The base of a cube is a square. _____

18. The number of edges on a cube is triple the number of its faces. _____

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# Surface Area of Pyramids and Triangular Prisms

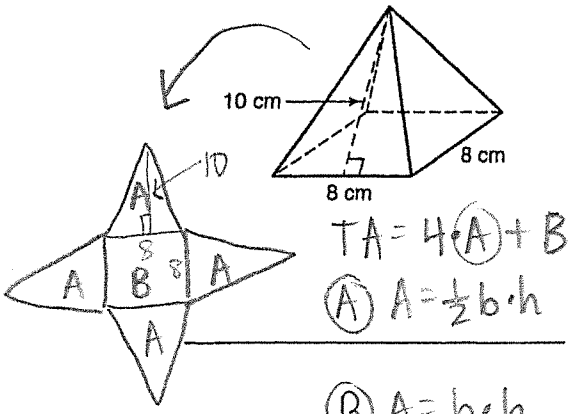
Name _____ 16

Date _____

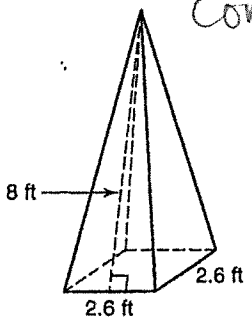
| Square Pyramid | Triangular Prism |
|---|---|
| $S = 4(A_{triangle}) + A_{square}$ | $S$ = Area of bottom face + Area of rectangular front and back faces + Area of triangular bases |

**Find the surface area of each figure.** Think of the NET, Then Composite area

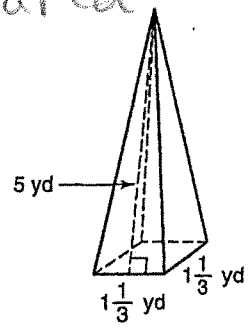
**1.**



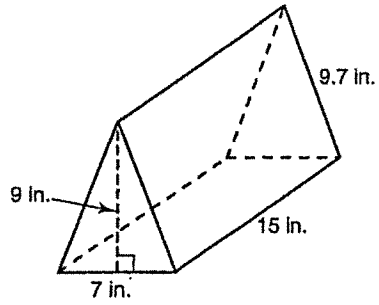

**2.**



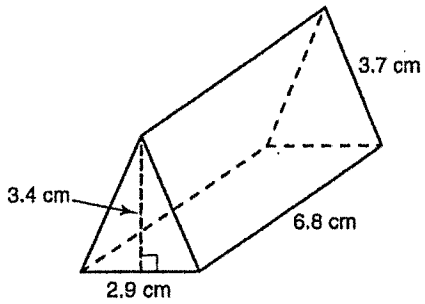

**3.**



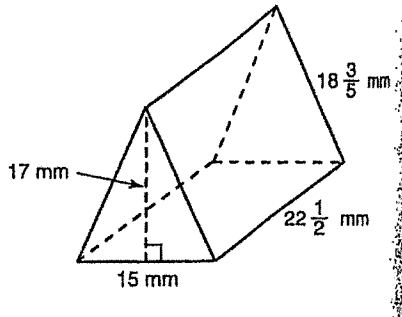

**4.**




**5.**

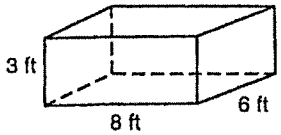



**6.**

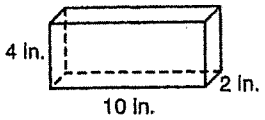



**Find the surface area of each rectangular prism.**

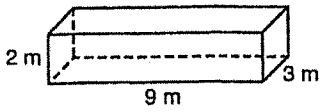
**8.**




**9.**




**10.**




**11.** $\ell$ = 12 dm, $w$ = 4 dm, $h$ = 5 dm

**12.** $\ell$ = 7.1 m, $w$ = 4 m, $h$ = 2.3 m

**13.** $\ell$ = 5 ft, $w = 2\frac{1}{2}$ ft, $h$ = 4 ft

**14.** $\ell$ = 6 yd, $w = 3\frac{1}{3}$ yd, $h = 2\frac{1}{2}$ yd

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