

## Summer Packet for Students Entering 7th Grade

### NUMBER SENSE

#### Place Value

1) In the 1988 Presidential election, 676,584 Connecticut voters voted for Dukakis and 750,241 voted for Bush. How many more people voted for Bush?

- a. 1,426,825      b. 173,657      c. 84,767      d. 73,657

2) In 1998 there was 179.63 million tons of garbage generated. What is this number rounded to the NEAREST tenth?

- a. 179.6      b. 179.7      c. 180.0      d. 200

3) Janie's temperature was 101.2 degrees when she went to the doctor. This is

- a. a little less than 102  
b. a little more than 102  
c. a little less than 101  
d. a little more than 101

4) Which means the same as  $60000 + 8000 + 900 + 7$ ?

- a. 6,080,907      b. 680,907      c. 68,907      d. 6,897

5) Which sum has the value of 8943?

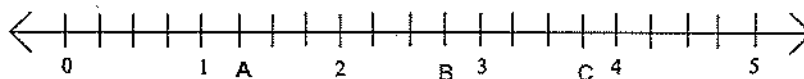
- a. 8 thousands + 9 hundreds + 43 tens  
b. 8 thousands + 94 tens + 3 ones  
c. 7 thousands + 9 hundreds + 43 tens  
d. 8 thousands + 9 hundreds + 4 tens + 3 ones

6) In which number does 5 have the least value?

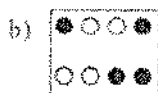
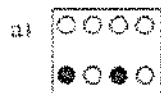
- a. 9532      b. 5932      c. 3925      d. 2352

#### Pictorial Representation of Numbers

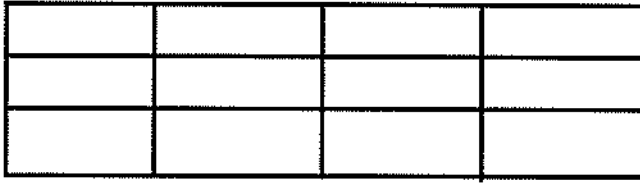
7) Which letter indicates  $1\frac{1}{4}$  on the number line?



8) Which of the following shows  $\frac{1}{2}$ ?

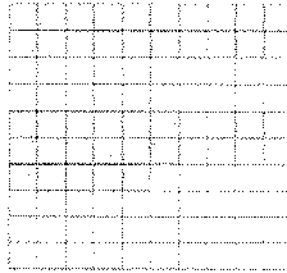
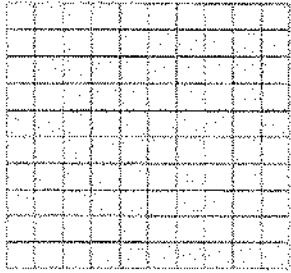


9) Shade one-third of the rectangle.

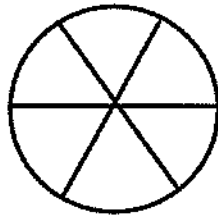


10) What decimal number is represented by the shaded part?

= 0.01



11) Shade  $\frac{2}{3}$  of the following circle:



**Equivalent Fractions, Decimals, and Percents**

12) What is another way of writing  $\frac{5}{3}$  ?

a.  $1\frac{2}{10}$

b.  $1\frac{1}{4}$

c.  $1\frac{3}{6}$

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

13) Which improper fraction is equivalent to  $2\frac{3}{4}$  ?

a.  $\frac{5}{4}$

b.  $\frac{14}{4}$

c.  $\frac{11}{4}$

d.  $\frac{9}{4}$

14) Jessica baked 10 cookies of different shapes. What decimal number represents the number of diamond-shaped cookies?



- a. 3                      b. 3.3                      c. 0.3                      d. 0.7

**Order, Magnitude, and Rounding of Numbers**

15) In 1991, baseball player Julio Franco of the Texas Rangers was the American League Batting Champion. His batting average was between 0.315 and 0.360. Which of these numbers could have been his batting average?

- a. 0.305                      b. 0.314                      c. 0.341                      d. 0.365

16) The table shows grade averages in science for four students.

Name	Average
Zach	83.24
Pete	83.14
Emma	83.42
Cathy	83.16

Who has the highest grade average?

- a. Zach                      b. Pete                      c. Emma                      d. Cathy

17) The ticket outlet sold between 13,300 and 15,700 tickets during the first day of ticket sales for a concert. Which of these numbers could have been the actual number of tickets sold?

- a. 13,120                      b. 13,300                      c. 14,733                      d. 15,877

18) A recipe calls for  $2\frac{3}{4}$  cups of flour,  $2\frac{1}{8}$  cups of sugar,  $2\frac{1}{4}$  of brown sugar, and  $2\frac{1}{2}$  cups of shortening. The LEAST amount of which ingredient is used?

- a. Flour                      b. Sugar                      c. Brown Sugar                      d. Shortening

19) Paula jogged for 5 days this week. She ran  $\frac{1}{6}$  mile,  $\frac{9}{10}$  mile,  $\frac{3}{4}$  mile, and  $\frac{2}{5}$  mile. What is the LONGEST distance ran?

- a.  $\frac{1}{6}$  mile                      b.  $\frac{2}{5}$  mile                      c.  $\frac{3}{4}$  mile                      d.  $\frac{9}{10}$  mile

20) Yesterday Mr. Reyes put 18.29 gallons of gas in the car. What is this amount rounded to the NEAREST GALLON?

21) Jamie buys 9.245 pounds of cookies. Round this weight to the nearest hundredth.

**OPERATIONS**

**Models for Operations**

22) A basketball player scores an average of 18 points per game. Which number sentence should be used to determine ABOUT how many points she scores in 8 games?

- a.  $18 + 8 =$       b.  $18 - 8 =$       c.  $18 \times 8 =$       d.  $18 \div 8 =$

23) Barney drove 455 miles on Monday and 389 miles on Tuesday. Which number sentence should Barney use to find how many MORE miles he drive on Monday?

- a.  $455 \div 2 =$       b.  $(455 + 389) \div 2$       c.  $455 = 389$       d.  $455 - 389$

24) Write a story problem that can be solved using the number sentence  $\$21.95 \times 3 =$

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25) Write a story problem that can be solved using the number sentence  $\$22.50 \div 5 =$

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**Basic Facts**

26)  $72 \div 9 =$

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

27)  $7 \times 6 =$

- a. 36                  b. 49                  c. 42                  d. 48

28)  $7 \times 8 =$

29)  $24 \div 6 =$

**Computation with Whole Numbers and Decimals**

30) Jason needs to read 164 pages in his library book. He has already read 85 pages. How many pages does Jason have left to read?

31) A 16-ounce bottle of Happy Ranch salad dressing costs \$3.39. Another brand sells for \$0.30 more per bottle. What is the price of the other brand of salad dressing?

- a. \$0.21                      b. \$3.09                      c. \$1.69                      d. \$3.69

32) A roll of film that takes 36 pictures costs \$3.59. A photographer used 7 rolls. How many pictures did she take?

- a. 9                              b. 25.13                      c. 63                              d. 252

33) Solve  $0.98 \div 7$

- a. 0.14                      b. 1.4                              c. 14.0                      d. 140

34) Solve  $125.3 \times 3$

- a. 0.3759                      b. 3.759                              c. 37.59                              d. 375.9

**Computation with Fractions**

35)  $\frac{5}{8} - \frac{3}{8}$

36)  $\frac{3}{6} + \frac{2}{6}$

37)  $7\frac{2}{3} + 5\frac{1}{3}$

38)  $4\frac{1}{2} - 2$

39)  $698 \div 100 =$

- a. 0.698                      b. 6.98                              c. 69.8                              d. 69,800

40)  $3.49 \div 10 =$

- a. 0.349                      b. 349                      c. 34.9                      d. 3490

41)  $0.495 \times 10 =$

- a. 4950                      b. 495                      c. 49.5                      d. 4.95

**Solve Word Problems**

42) One dozen donuts at the coffee shop costs \$3.60. Each donut costs the same amount. What is the cost of one donut?

43) A package of 15 computer disks costs \$47.25. If each disk costs the same amount, how much did each disk cost?

44) Jenn bought 3 shirts that cost \$12.95 each. She gave the clerk a \$50 bill to pay for the shirts. How much change should Jenn receive?

**ESTIMATION AND APPROXIMATION**

**Numerical Estimation Strategies**

45) There were 3,823 people at the Westport Arts Festival on Saturday. On Sunday, 5,139 people attended. To get a good ESTIMATE of how many people attended altogether for both days, which expression would be best to use?

- a.  $4,000 + 5,000$                       b.  $3,000 + 5,000$                       c.  $4,000 + 6,000$                       d.  $3,000 + 6,000$

46) Alvin needs to multiply 28 by 33. To get a good ESTIMATE of this difference which expression would be best for Alvin to use?

- a.  $30 \times 40$                       b.  $30 \times 30$                       c.  $25 \times 30$                       d.  $20 \times 20$

47) To estimate the product of 423 and 913, Joe multiplies  $400 \times 900$ . Is Joe's estimate GREATER than or LESS than the actual amount?

- a. Greater, because he rounded both numbers up.  
b. Greater, because he rounded both numbers down.  
c. Less, because he rounded both numbers up.  
d. Less, because he rounded both numbers down.

48) To ESTIMATE the product of 521 and 613, John multiplied  $500 \times 600$ . Will John's estimate be MORE or LESS than the actual sum?

- a. More, because he rounded both numbers up.
- b. More, because he rounded both numbers down.
- c. Less, because he rounded both numbers up.
- d. Less, because he rounded both numbers down.

49) Josh is helping count supplies for the school picnic. He wants to ESTIMATE the number of hamburgers in 12 cases. Each case holds 24 packages. Each package has 8 hamburgers. What would be a GOOD ESTIMATE of the number of hamburgers?

Answer: \_\_\_\_\_

Explain how you made your estimate.

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### Estimating Solutions to Problems

50) Dylan wants to divide 1304 by 18. To get a good ESTIMATE of this quotient, which expression would be BEST for Dylan to use?

- a.  $1300 \div 20$       b.  $1300 \div 200$       c.  $2000 \div 15$       d.  $1500 \div 10$

51) Ruth wants to multiply 176 by 82. To get a good ESTIMATE of this product, which expression would be BEST for Ruth to use?

- a.  $176 \times 200$       b.  $175 \times 2$       c.  $80 \times 2$       d.  $200 \times 80$

52) Jim wants to subtract 238 from 743. To get a good ESTIMATE of this difference, which expression would be BEST for Jim to use?

- a.  $700 + 200$       b.  $1000 - 230$       c.  $700 - 200$       d.  $800 - 250$

53) Jill wants to add 817 and 1236. To get a good ESTIMATE of this sum, which expression would be BEST for Jill to use?

- a.  $900 + 1200$       b.  $900 + 1300$       c.  $800 + 1200$       d.  $800 + 1000$

54) In June, Christy earned about \$18 for mowing lawns and \$29 for babysitting. ABOUT how much did she earn altogether?

- a. \$80      b. \$30      c. \$50      d. \$25