
Tennessee Comprehensive Assessment Program
TCAP

TNReady — Grade 7 Math Part I

PRACTICE TEST

Student Name

Teacher Name



Tennessee Department of Education



Directions

This Practice Test booklet contains sample items for Grade 7 Math. Write your answers in this Practice Test booklet.

You MAY use a calculator with all test items in this test booklet.

Sample A: Selected-Response

Circle **all** expressions equivalent to $4(9 + 3)$.

- A. $4(12)$
- B. $36 + 3$
- C. $36 + 12$
- D. $4 + (9 + 3)$
- E. $(9 + 3) + (9 + 3) + (9 + 3) + (9 + 3)$

Sample B: Table

Select **True** or **False** to indicate whether each comparison is true.

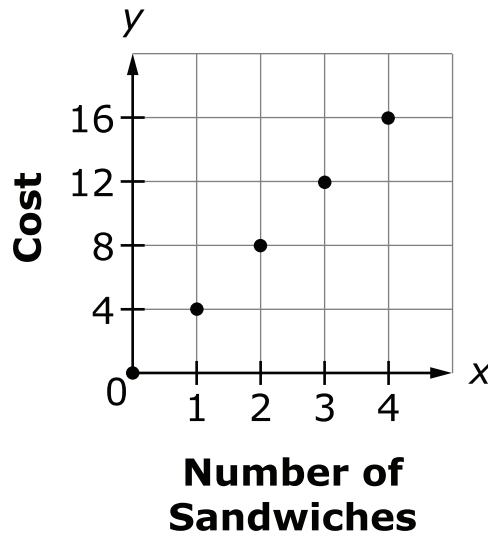
| | True | False |
|--|------|-------|
| $3^2 < \frac{4}{9} + \frac{2}{3}$ | | |
| $2(2^3 + 14 \cdot 2) \geq 9 \cdot 8$ | | |
| $16.2 \cdot 3 - 24.6 < 72 \div 3 + 2.78$ | | |

Sample Answers

- A. A, C, E
- B. False, True, True



1. Use the information shown in the graph to complete the sentences.



Part A

Select the ordered pair that would correctly complete the sentence.

The point (___, ___) represents the unit rate.

- A. (0, 0)
- B. (1, 4)
- C. (2, 8)
- D. (3, 12)
- E. (4, 16)

Part B

Circle one number from Box A for blank A and one number from Box B for blank B to correctly complete the sentence.

The point (3, 12) means that for \$ A you can buy B sandwiches.

| Box A | Box B |
|-------|-------|
| 3 | 3 |
| 12 | 12 |



2. Which expression is equivalent to $\frac{12}{5}x - 2$?

A. $\frac{12x - 2}{5}$

B. $2\left(\frac{2}{5}x - 1\right)$

C. $\frac{2}{5}(6x - 1)$

D. $\frac{1}{5}(12x - 10)$

3. The first column contains five pairs of relationships. Determine if each pair forms a proportional relationship. Draw an **X** under "Proportional" or "Not Proportional" for each relationship in the table.

| | Proportional | Not Proportional |
|---|---------------------|-------------------------|
| 3 games played in 2.5 hours and 9 games played in 7.5 hours | | |
| 18 points scored in 3 games and 20 points scored in 5 games | | |
| 2 apples for \$1.50 and 8 apples for \$6.50 | | |
| \$35.00 for 12.5 gallons of gasoline and \$16.80 for 6 gallons of gasoline | | |
| 15 miles from home after 20 minutes and 36 miles from home after 48 minutes | | |



4. Chris has \$1500 in the bank and takes out $\frac{1}{3}$ of the money.

He decides to use $\frac{3}{5}$ of the money he took from his account to pay part of a \$700 debt. After he makes this payment, how much, in dollars, does he still owe?

Write your answer in the space provided.

5. Trinity operates a lemonade stand every weekend. This weekend, she made 45% more money than the previous weekend. The previous weekend she made x dollars.

Write an expression that shows how much money Trinity made this weekend in the space provided.

6. A recipe for 1 pumpkin pie calls for $1\frac{1}{4}$ cups of sugar. Alaina has only $\frac{1}{2}$ cup of sugar and she needs to make 4 pumpkin pies.

How much more sugar will Alaina need to make all 4 pies?

Write your answer in the space provided.



7. The menu shows the prices for food and drink at a stadium. Customers can purchase separate items or choose from four combination (combo) packages. Combos are sold at a discounted price, lower than the price would be if each item in the combo were bought separately.

Stadium Menu

| Separate Item Prices (\$) | | | | Combo Prices (\$) | |
|---------------------------|------|---------|------|-------------------|-------|
| Hamburger | 6.50 | Popcorn | 3.00 | Combo 1 | 10.00 |
| Hot Dog | 4.00 | Water | 3.00 | Combo 2 | 10.25 |
| Nachos | 5.50 | Soda | 3.50 | Combo 3 | 10.50 |
| Peanuts | 4.50 | - | - | Combo 4 | 13.00 |

Part A

The items in combo 1 and combo 3 are given in the table. For each combo, determine the amount of the discount compared to purchasing each item in the combo separately, and then determine the percent discount. Round to the nearest whole percent.

| Combo | Items Included | Discount Amount (\$) | Percent Discount (%) |
|----------|----------------------------|----------------------|----------------------|
| 1 | Nachos, popcorn, and water | | |
| 3 | Peanuts, popcorn, and soda | | |

Item continues on next page.



Stadium Menu

| Separate Item Prices (\$) | | | | Combo Prices (\$) | |
|---------------------------|------|---------|------|-------------------|-------|
| Hamburger | 6.50 | Popcorn | 3.00 | Combo 1 | 10.00 |
| Hot Dog | 4.00 | Water | 3.00 | Combo 2 | 10.25 |
| Nachos | 5.50 | Soda | 3.50 | Combo 3 | 10.50 |
| Peanuts | 4.50 | - | - | Combo 4 | 13.00 |

Part B

The combined sales for combo 3 and combo 4 on one particular day totaled \$1586.00. The number of combo 2 packages sold was 13 more than $\frac{1}{4}$ of the total number of all of the combos sold. The table is missing some information. Complete the table using the information given.

| Combo | Items Included | Number Sold | Amount Earned (\$) |
|-------|------------------------------|-------------|--------------------|
| 1 | Nachos, popcorn, and water | | |
| 2 | Hot dog, peanuts, and soda | 88 | 902 |
| 3 | Peanuts, popcorn, and soda | | |
| 4 | Hamburger, nachos, and water | 59 | 767 |

Part C

How much more money would the stadium have earned in sales if combos were not offered and the same number of items from all the combos were purchased individually?

Write your answer in the space provided.



8. Jerry is mowing his lawn. It takes him $\frac{1}{6}$ of an hour to mow $\frac{3}{20}$ of his yard. How much time will it take him to mow the entire yard?

A. $\frac{19}{60}$ hr

B. $\frac{9}{10}$ hr

C. $\frac{10}{9}$ hr

D. $\frac{10}{3}$ hr



9. Each of the three tables shows a relationship.

Cost of Movies

| Number of Movies | Cost (\$) |
|------------------|-----------|
| 1 | \$10 |
| 2 | \$15 |
| 3 | \$20 |
| 4 | \$25 |

Photo Album

| Number of Pages | Number of Pictures |
|-----------------|--------------------|
| 1 | 15 |
| 2 | 30 |
| 3 | 55 |
| 4 | 75 |

Minutes Read

| Number of Days | Minutes Read |
|----------------|--------------|
| 1 | 20 |
| 2 | 40 |
| 3 | 60 |
| 4 | 80 |

For each of the sentences shown below, circle the answer in the box below the sentence that would correctly complete the sentence.

The table that shows a proportional relationship is the **A** table.

| Box A |
|----------------|
| Cost of Movies |
| Photo Album |
| Minutes Read |

The constant of proportionality is **B**.

| Box B |
|--------------|
| 5 |
| 10 |
| 15 |
| 20 |



- 10.** Last month, Karmin made \$480 working for 30 hours. This month, she will get a 15% increase in the amount she earns per hour. What will be her hourly rate, in dollars per hour, after the raise?

Write your answer in the space provided.

- 11.** Audra makes and sells bracelets. It costs her \$8 to make a bracelet, and she sells them at a markup of 210%. Audra wants to have a sale, so she marks all of her bracelets 20% off the normal selling price. What will be the price of each bracelet during the sale?
- A.** \$15.20
 - B.** \$16.80
 - C.** \$19.84
 - D.** \$23.20



12. Over the summer, Marty read 4 times as many pages as the number of pages Nelson and Jennifer read combined. Marty read 1860 pages and Nelson read 240 pages.

Part A

Select an equation that could be solved to find the number of pages, p , Jennifer read.

- A. $1860 + 240 = 4p$
- B. $4(240 + p) = 1860$
- C. $1860 - (960 \div 4) = p$
- D. $240 + 4p = 1860$

Part B

How many pages did Jennifer read?

Write your answer in the space provided.