

# Sample Documents

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## **TAAS Secondary Math (TX3)**

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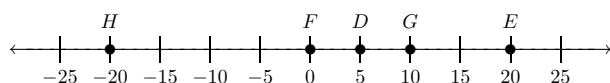
Name \_\_\_\_\_

Date \_\_\_\_\_

1. The height of Mount McKinley is approximately 240,000 inches. Express this number in scientific notation.

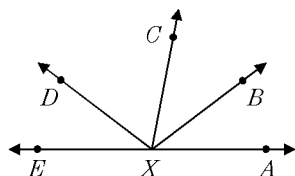
- A  $2.4 \times 10^{-6}$
- B  $2.4 \times 10^5$
- C  $2.4 \times 10^6$
- D  $24 \times 10^6$

2. This number line satisfies which of the following conditions?



- A  $E = 0$
- B  $F > 0$
- C  $E = 20$
- D  $E > 20$

3. Which statement is true about the figure?



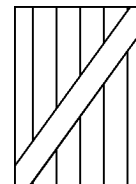
- A  $\angle DXC + \angle CXB = \angle DXC$
- B  $\angle EXD + \angle DXC = \angle AXC$
- C  $\angle DXB + \angle BXA = \angle DXA$
- D  $\angle EXA + \angle CXB = \angle EXD$

4. Sam needs  $1\frac{1}{4}$  yards of silver wire to make a necklace. She purchased  $1\frac{1}{2}$  yards of wire in case she needed extra. How many extra inches of wire did Sam purchase?

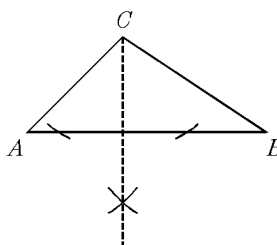
- A 1 in.
- B 4 in.
- C 9 in.
- D 12 in.

5. A barn door is 6 feet wide. The diagonal board supporting the gate is 10 feet long. How high is the door?

- A 18 ft
- B 12 ft
- C 10 ft
- D 8 ft



6. This drawing shows how to construct the \_\_\_\_.



- A median of a triangle
- B angle bisector of the triangle
- C altitude of the triangle
- D bisector of the base

7. Which of the following statements is true?

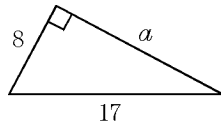
- A  $1\frac{7}{8} < 1\frac{3}{4}$
- B  $2\frac{3}{5} < 2\frac{4}{7}$
- C  $2\frac{6}{11} < 1\frac{5}{7}$
- D  $4\frac{4}{7} < 4\frac{3}{5}$

8. Which of the following appears to be an ellipse?

- A
- B
- C
- D

9. Given the figure, find  $a$ .

- A 225
- B 30
- C 15
- D 5



10. Ms. Kim's new computer monitor came in a box, which measured  $2\frac{3}{4}$  feet by 3 feet by 2 feet. What is the volume of the box?

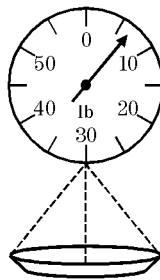
- A  $8\frac{3}{4} \text{ ft}^3$
- B  $12\frac{1}{2} \text{ ft}^3$
- C  $16\frac{1}{2} \text{ ft}^3$
- D  $20\frac{1}{4} \text{ ft}^3$

11. If  $4.3 - 8c = -9.3$ , what is the value of  $c$ ?

- A -1.1
- B 0.7
- C 1.3
- D 1.7

12. What is the greatest precision that can be achieved using this scale?

- A 5 lb
- B 1 lb
- C  $\frac{1}{4}$  lb
- D  $\frac{1}{10}$  lb

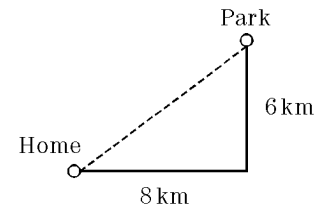


13.  $\sqrt{62}$  is between what pair of consecutive integers?

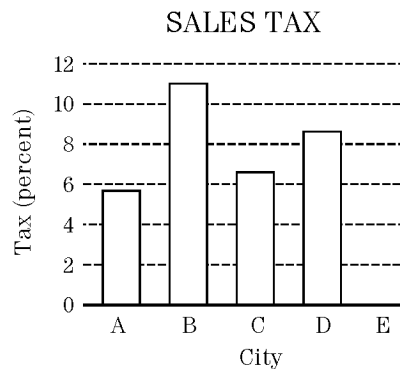
- A 10 and 11
- B 8 and 9
- C 7 and 8
- D 6 and 7

14. Nicky left her house and bicycled due east 8 kilometers, then due north 6 kilometers to the park. She then bicycled from the park directly back to her house. How far did Nicky ride on the round-trip?

- A 2 km
- B 10 km
- C 24 km
- D 38 km

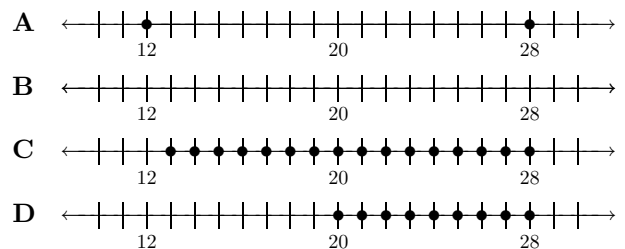


15. The bar graph compares the sales tax of four US cities. If Jane purchases a stereo for \$600, what will be her sales tax?



- A She will pay \$8.50 in city D.
- B She will pay \$6.50 in city C.
- C She will pay \$11.00 in city B.
- D She will pay \$66.00 in city B.

16. The temperature of a freezer is normally 20 degrees Fahrenheit. The temperature varies as much as 8 Fahrenheit degrees in either direction. Which number line shows the range of the temperature of the freezer?



**Answer List**

- |       |       |       |
|-------|-------|-------|
| 1. B  | 2. C  | 3. C  |
| 4. C  | 5. D  | 6. C  |
| 7. D  | 8. A  | 9. C  |
| 10. C | 11. D | 12. A |
| 13. C | 14. C | 15. D |
| 16. A |       |       |
- 

**Catalog List**

- |               |               |               |
|---------------|---------------|---------------|
| 1. TX3 AA 71  | 2. TX3 BC 31  | 3. TX3 CA 89  |
| 4. TX3 DB 78  | 5. TX3 CC 66  | 6. TX3 CE 11  |
| 7. TX3 AC 29  | 8. TX3 CB 36  | 9. TX3 CC 4   |
| 10. TX3 BF 25 | 11. TX3 BG 68 | 12. TX3 DE 26 |
| 13. TX3 AF 67 | 14. TX3 GD 30 | 15. TX3 GI 10 |
| 16. TX3 BC 56 |               |               |

Worksheet 12

Name \_\_\_\_\_

Date \_\_\_\_\_

1.  $5.03 \times 10^6 = \underline{\hspace{2cm}}$

- (a) 0.0000503                      (b) 503,000  
 (c) 50,300,000                    (d) 5,030,000  
 (e) none of these

2. What is the quotient of  $\frac{6^7}{6^4}$ ?

- (a)  $6^{-3}$                               (b)  $6^2$   
 (c)  $6^{-2}$                               (d)  $6^3$   
 (e) none of these

3. Which group of mixed numbers is listed in order of greatest to least?

- (a)  $2\frac{5}{9}$ ,  $3\frac{1}{3}$ ,  $3\frac{5}{6}$ ,  $2\frac{3}{4}$                       (b)  $3\frac{5}{6}$ ,  $3\frac{1}{3}$ ,  $2\frac{3}{4}$ ,  $2\frac{5}{9}$   
 (c)  $3\frac{5}{6}$ ,  $2\frac{3}{4}$ ,  $2\frac{5}{9}$ ,  $3\frac{1}{3}$                       (d)  $2\frac{3}{4}$ ,  $3\frac{5}{6}$ ,  $3\frac{1}{3}$ ,  $2\frac{5}{9}$   
 (e) none of these

4. What is 53,673.8721 rounded to the nearest thousandth?

- (a) 53,673.88                              (b) 53,673.872  
 (c) 53,600                                  (d) 53,000  
 (e) none of these

5. Apples are the favorite fruit of  $\frac{1}{4}$  of 325 people who responded to a survey. To find the number of people who chose apples as their favorite fruit, multiply 325 by \_\_\_\_\_.

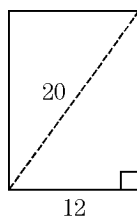
- (a) 0.05                                      (b) 0.25  
 (c) 0.025                                    (d) 4.0  
 (e) none of these

6. To determine the area of a square computer part with a side of 0.04 centimeters, Lee found the value of  $(0.04)^2$ . What should the answer be?

- (a)  $0.0008 \text{ cm}^2$                               (b)  $0.08 \text{ cm}^2$   
 (c)  $0.0016 \text{ cm}^2$                               (d)  $0.16 \text{ cm}^2$   
 (e) none of these

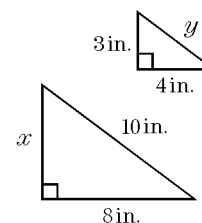
7. Find the perimeter of the rectangle.

- (a) 28  
 (b) 96  
 (c) 56  
 (d) 44  
 (e) none of these



8. The pair of triangles in the figure are similar. What is the value of  $x$ ?

- (a) 8 in.  
 (b) 10 in.  
 (c) 4 in.  
 (d) 12 in.  
 (e) none of these



9. The expression  $3 \times (L + W)$  is the same as \_\_\_\_\_.

- (a)  $\frac{LW}{3}$                                       (b)  $L + 3W$   
 (c)  $3LW$                                       (d)  $3L + W$   
 (e) none of these

10. What is the 7th number in the sequence?

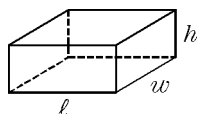
35, 32, 29, 26, ...

- (a) 11    (b) 9  
 (c) 14    (d) 20  
 (e) none of these

11. Ye Olde Ice Cream Shoppe offers a variety of ice cream flavors and toppings as shown in the table. How many different sundaes can be made consisting of 1 flavor of ice cream and 1 topping?

Ye Olde Ice Cream Shoppe	
Flavor	Topping
banana	nuts
chocolate	fudge
peach	candies
strawberry	fruit
vanilla	

- (a) 15                                      (b) 35  
 (c) 20                                      (d) 9  
 (e) none of these
13. Which shape must have both pairs of opposite sides congruent?
- (a) quadrilateral                      (b) trapezoid  
 (c) triangle                              (d) polygon  
 (e) none of these
15. What is the surface area of this solid if  $\ell = 3$ ,  $w = 3$  and  $h = 5$ ?



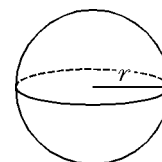
- (a) 78  
 (b) 42  
 (c) 80  
 (d) 12  
 (e) none of these
17. Which of the following measurements can be the lengths of the sides of a right triangle?
- (a) 1, 2, 3                              (b) 1, 2, 2  
 (c) 1, 4, 5                              (d) 3, 3, 3  
 (e) none of these

12. The music preferences of 60 students are shown in the table. What percentage of students prefer rock music?

Music Survey	
Type of Music	Number of Students
Classical	5
Country	12
Rap	18
Rock	15
Show music	10

- (a) 25%                                      (b) 30%  
 (c)  $12\frac{1}{2}\%$                                   (d) 20%  
 (e) none of these
14. What is the supplement of an angle having a measure of  $60^\circ$ ?
- (a)  $90^\circ$                                       (b)  $30^\circ$   
 (c)  $120^\circ$                                     (d)  $180^\circ$   
 (e) none of these

16. What is the surface area of this sphere if  $r = 5$ ? ( $S = 4\pi r^2$ )



- (a)  $1000\pi$   
 (b)  $25\pi$   
 (c)  $250\pi$   
 (d)  $100\pi$   
 (e) none of these

18. Two legs of a right triangle measure 9 feet and 12 feet. What is the measure of the hypotenuse?
- (a) 15 ft                                      (b) 19 ft  
 (c) 96 ft                                      (d) 17 ft  
 (e) none of these

**Answer List**

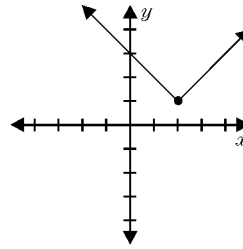
- |       |       |       |
|-------|-------|-------|
| 1. d  | 2. d  | 3. b  |
| 4. b  | 5. b  | 6. c  |
| 7. c  | 8. e  | 9. e  |
| 10. e | 11. c | 12. a |
| 13. e | 14. c | 15. a |
| 16. d | 17. e | 18. a |
- 

**Catalog List**

- |               |               |               |
|---------------|---------------|---------------|
| 1. TX3 AA 24  | 2. TX3 AB 50  | 3. TX3 AC 50  |
| 4. TX3 AD 46  | 5. TX3 AE 100 | 6. TX3 AF 103 |
| 7. TX3 CC 19  | 8. TX3 CD 15  | 9. TX3 BA 61  |
| 10. TX3 BB 30 | 11. TX3 GE 1  | 12. TX3 GE 23 |
| 13. TX3 CB 4  | 14. TX3 CF 6  | 15. TX3 DD 66 |
| 16. TX3 DD 69 | 17. TX3 CC 35 | 18. TX3 CC 21 |

1. Given the graph, describe the domain.

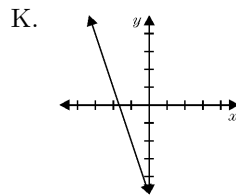
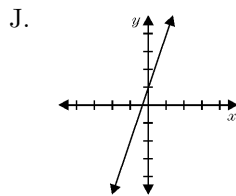
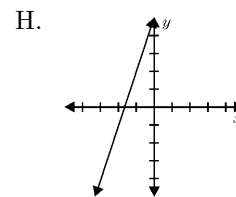
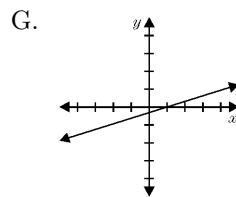
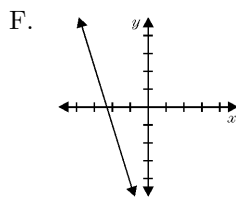
- A.  $x \geq 1$
- B.  $y \geq 1$
- C.  $x < 2$
- D.  $y > 1$
- E. All Real Numbers



1. (A) (B) (C) (D) (E)

2. Which graph represents the line containing the point  $(-2, -1)$  and having the slope of 3?

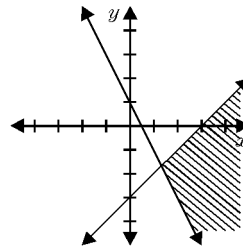
2. (F) (G) (H) (J) (K)



3. The graph shown represents which system of inequalities?

3. (A) (B) (C) (D) (E)

- A.  $y \geq x - 3$
- B.  $y \geq -x - 3$
- $y \leq -2x + 1$
- $y \leq 2x + 1$
- C.  $y \leq x - 3$
- D.  $y \leq -x - 3$
- $y \leq -2x + 1$
- $y \geq 2x + 1$
- E.  $y \leq x - 3$
- $y \geq -2x + 1$



4. Hector caught two bass that measured a total of 22 inches. One bass was 2 inches longer than the other. Which equation expresses the relationship of the lengths of the two bass if  $\ell$  represents the length of the longer bass?

4. (F) (G) (H) (J) (K)

- F.  $\ell + \ell + 2 = 22$
- G.  $\ell + \ell - 2 = 22$
- H.  $\ell + 2 = 22$
- J.  $\ell - 2 = 22$
- K.  $\ell + 2 = 22 - \ell$

5. Solve:  $5[x - 2(x - 1)] = x + 13$

5. (A) (B) (C) (D) (E)

- A.  $x = -10\frac{1}{2}$
- B.  $x = -2$
- C.  $x = -\frac{1}{2}$
- D.  $x = \frac{1}{2}$
- E.  $x = 1$

6. Given the trapezoid shown, express the area in terms of  $x$ .

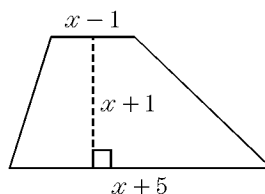
F.  $x^3 + 5x - 5$

G.  $3x + 5$

H.  $2x + 3$

J.  $x^2 + 3x + 2$

K.  $x^2 - 2x + 2$



6. (F) (G) (H) (J) (K)

7. Aaron deposits \$20,000 in a bank account that earns 5.9% compounded quarterly. The amount of money,  $A$ , in the account can be determined by the formula

$$A = 20,000 \left( 1 + \frac{0.059}{4} \right)^{4t}$$

where  $t$  is the number of years that the money is in the bank. How much money does Aaron have after 10 years?

A. \$13,804.20

B. \$17,972.10

C. \$26,591.13

D. \$30,872.31

E. \$35,924.64

7. (A) (B) (C) (D) (E)

8. A parachute is being pulled by a boat from a 100 ft cord. The horizontal distance to the parachute is 80 ft. What is the altitude of the parachute?

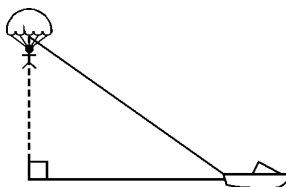
F. 75 ft

G. 65 ft

H. 60 ft

J. 50 ft

K. 40 ft



8. (F) (G) (H) (J) (K)

9. The combined SAT mean score for Texas have been as follows

Year	Combined Math-Verbal Score
1992	979
1994	989
1996	995

Using this information, what is the expected SAT mean score in the year 2001?

A. 1016

B. 1020

C. 1025

D. 1029

E. 1038

9. (A) (B) (C) (D) (E)

10. A local radio station is giving away chances to attend the Michael Jackson concert. There are 6 backstage passes, 25 lower balcony tickets and 69 upper balcony tickets. Lyle gets the chance to draw for a prize, what is the probability that he will draw the backstage passes?

F.  $\frac{3}{50}$

G.  $\frac{3}{47}$

H.  $\frac{2}{25}$

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

K.  $\frac{1}{3}$

10. (F) (G) (H) (J) (K)

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Algebra I Placement Test 2/8/99

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**Answer List**

- |       |      |      |
|-------|------|------|
| 1. E  | 2. H | 3. E |
| 4. G  | 5. C | 6. J |
| 7. E  | 8. H | 9. A |
| 10. F |      |      |
- 

**Catalog List**

- |               |              |              |
|---------------|--------------|--------------|
| 1. TX3 HA 19  | 2. TX3 HB 17 | 3. TX3 HB 78 |
| 4. TX3 HD 14  | 5. TX3 HD 12 | 6. TX3 HF 20 |
| 7. TX3 HH 8   | 8. TX3 HH 83 | 9. TX3 HJ 83 |
| 10. TX3 HJ 16 |              |              |