Name: _____

TNReady NO CALCULATOR Practice Test

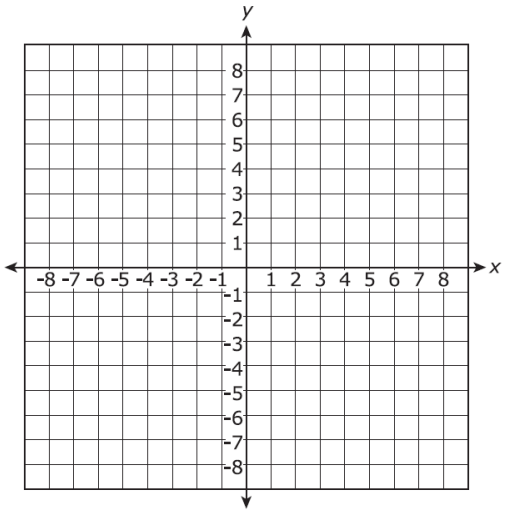
1)

In the following table, mark "Irrational" if the number is an irrational number, and "Rational" if the number is a rational number.

	Irrational	Rational
1.33333...	○	○
5	○	○
$\sqrt{4}$	○	○
$\sqrt{7}$	○	○
2.5	○	○
π	○	○

2)

On the coordinate plane shown, plot **five** points that represent a function.



3) Given the expression $\frac{(2^{-3})(2^{5})}{(2^{7})}$, select the **three** equivalent numerical expressions.

M. $(2^{-3+5})(2^{-7})$

P. $\frac{2^5}{2^{3-7}}$

R. $\frac{2^5}{2^{10}}$

S. $(2^5)(2^{-4})$

T. $\frac{1}{32}$

V. 32

4) What is the value of b for $b^2 = \frac{36}{64}$?

M. $b = \frac{18}{32}$

P. $b = \frac{9}{16}$

R. $b = \frac{6}{8}$

S. $b = \frac{72}{128}$

5) What value of coefficient b makes the equation true for any real number x?

$$-3(2x - 3) + 5x = bx + 9$$

A. 11

B. 7

C. −1

D. −6

6)

For each equation in the table, determine whether the solution for x is one or two rational numbers.

Mark "One" if the equation has one rational solution, and "Two" if the equation has two rational solutions.

	One	Two
$x^2 = 1$	○	○
$x^3 = 8$	○	○
$x^2 = 0$	○	○
$x^2 = 16$	○	○
$x^3 = \frac{1}{27}$	○	○

7) Which equation represents a linear function?

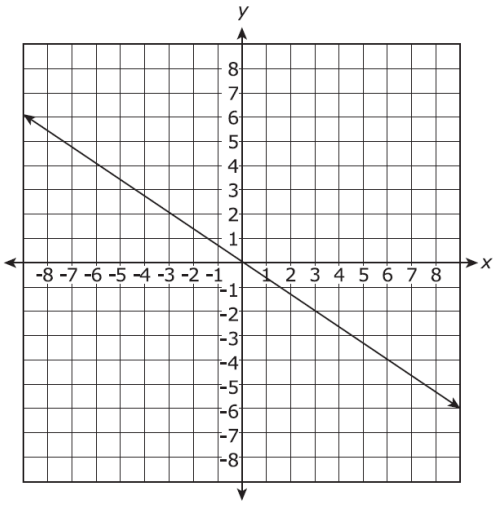
A. $y = x(2 - 3x)$

B. $y = \frac{1}{2}(x - 3) - 2x$

C. $y = \frac{1}{2}x^2 + 3x - 1$

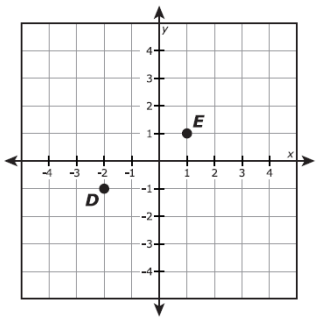
D. $y = \frac{1}{2}x(2x - 1) + 3$

8) The graph displays a linear function.



Write the equation of the linear function in the form $y = mx + b$.

10) Points D and E are graphed on the coordinate plane.



What is the distance, in units, between point D and point E?

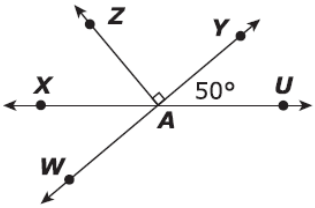
M. $\sqrt{5}$ units

P. 3 units

R. $\sqrt{13}$ units

S. 5 units

12) Lines *XU* and *WY* intersect at point *A*.



Based on the diagram, select **all** statements that must be true.

A. $\angle XAZ$ measures 50°.

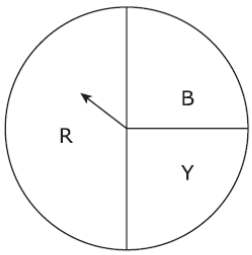
B. $\angle XAW$ measures 50°.

C. $\angle WAU$ and $\angle XAY$ are vertical angles.

D. $\angle ZAX$ and $\angle YAU$ are complementary angles.

E. $\angle WAZ$ and $\angle ZAU$ are supplementary angles.

9) In the spinner shown, the probability of spinning red (R) is $\frac{1}{2}$, and the probability of spinning either blue (B) or yellow (Y) is $\frac{1}{4}$.



The spinner will be spun twice.

What is the probability that the result of the first spin will be red and the second spin will be blue?

A. $\frac{5}{16}$

B. $\frac{1}{8}$

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

D. $\frac{3}{4}$

11) Four irrational expressions are shown in the first column of the table. Match each irrational expression to its **closest** approximate value on the top row of the table.

	6.71	3.40	5.27	5.50
$\frac{2}{3}\sqrt{26}$	○	○	○	○
$3\sqrt{5}$	○	○	○	○
1.75π	○	○	○	○
$\frac{\sqrt{111}}{2}$	○	○	○	○

13) The table represents linear Function F.

x	y
4	18
6	24
10	36

The equation $y = 4x + 2$ represents Function G.

Which statement is true?

A The rate of change of Function G is less than the rate of change of Function F because $2 < 3$.

B The rate of change of Function G is less than the rate of change of Function F because $4 < 9$.

C The rate of change of Function G is greater than the rate of change of Function F because $2 > \frac{9}{7}$.

D The rate of change of Function G is greater than the rate of change of Function F because $4 > 3$.

14)

Which sets of ordered pairs represent a function? Select **all** that apply.

A. (1,1), (1,2), (1,3), (1,4)

B. (1,1), (2,2), (3,3), (4,4)

C. (1,1), (2,1), (3,1), (4,1)

D. (1,4), (2,4), (1,3), (2,3)

E. (1,4), (2,2), (3,1), (4,3)

15) What is the solution to the equation shown below?

$$\frac{2}{3}x + 5 = 1$$

A $x = -6$

B $x = 4$

C $x = -4.5$

D $x = 9$

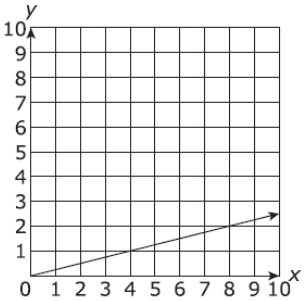
16)

The table represents a proportional relationship.

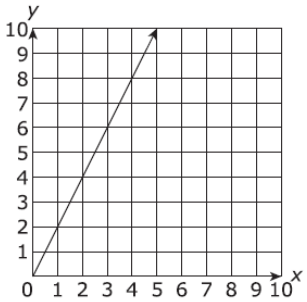
x	1	1.5	2	2.5
y	4	6	8	10

Which graph represents a proportional relationship with the same unit rate as the table?

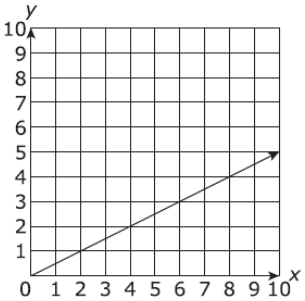
M.



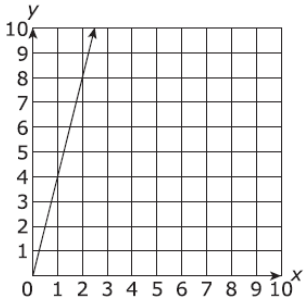
R.



P.

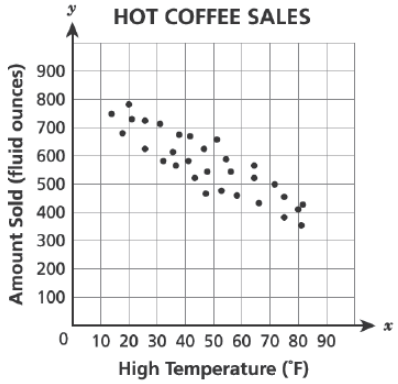


S.



17)

The owner of a coffee shop compared the amount of hot coffee per day, in fluid ounces, sold and the daily high temperature, in degrees Fahrenheit, per day. Her data are shown in the scatter plot below.



If these data are modeled by the line $y = -5.9x + 850$, which statement **best** describes a valid prediction the owner could make?

A For each temperature increase of 10°F, the shop can expect to sell about 60 fluid ounces more hot coffee.

B For each temperature decrease of 10°F, the shop can expect to sell about 6 fluid ounces more hot coffee.

C On a day with a high temperature of 0°F, the shop can expect to sell about 145 fluid ounces of hot coffee.

D On a day with a high temperature of 0°F, the shop can expect to sell about 850 fluid ounces of hot coffee.

18) Ms. Gibson made an initial deposit of $500 when opening a bank account. After the initial deposit, she deposited the same amount of money each month. The table below shows the total amount of money, *a*, she deposited into the account after a certain number of months, *t*, since opening it.

	Total Amount Depo i
4	$1,500
8	$2,500
10	$3,000
13	$3,750

Which equation models the relationship between *a* and *t*?

A $a = 250t$

B $a = 500t$

C $a = 250t + 500$

D $a = 500t + 250$