# NeSA <br> Mathematics 

# Nebraska State Accountability 

## Grade 7

Mathematics
Practice Test

Name:

1. Use the coordinate grid below to answer the question.


What are the coordinates of point J ?
A. $(0,3)$
B. $(-3,0)$
C. $(3,0)$
D. $(0,-3)$
2. John eats $\frac{3}{5}$ of a candy bar. What percent of the candy bar does he eat?
A. $6 \%$
B. $30 \%$
C. $35 \%$
D. $60 \%$
3. A small submarine started its dive at sea level and descended 30 feet per minute. Which integer represents the submarine's depth after seven minutes?
A. -210 feet
B. -23 feet
C. 37 feet
D. 210 feet
4. Use the coordinate grid below to answer the question.


What is the distance between the points at $(0,1)$ and $(0,10)$ ?
A. 8 units
B. 9 units
C. 10 units
D. 11 units
5. Use the table below to answer the question.

Calorie Table

| Food | Calories |
| :--- | :---: |
| Cheddar cheese, 1 ounce | 114 |
| Orange, 1 medium | 70 |
| Egg, 1 large | 75 |
| Strawberries, 1 serving | 45 |
| Pecans, 1/4 cup | 185 |

Which expression represents the number of calories in $r$ oranges and $\frac{1}{4}$ cup of pecans?
A. $70+185$
B. $75 r+185$
C. $70 r+185$
D. $75+185$
6. Which represents the value of $s$ in $s+12 \geq 100$ ?
A. $s>88$
B. $s<88$
C. $s \geq 88$
D. $s \leq 88$
7. What is $6.43 \times 10^{7}$ in standard notation?
A. $643 \times 10^{5}$
B. $64,300,000$
C. $6,430,000,000$
D. $64.3 \times 10^{10}$
8. Pat has his own lawn mowing service. The maximum Pat charges to mow a lawn is $\$ 20$. Which inequality represents the amount Pat could charge, $c$, to mow a lawn?
A. $c>20$
B. $c \geq 20$
C. $c=20$
D. $c \leq 20$
9. The attendance at three concerts was 876,647 , and 856 . Which expression shows how to estimate the total attendance at the concerts?
A. $800+600+800$
B. $900+700+900$
C. $900+600+900$
D. $1,000+700+900$
10. Which graph shows the ordered pair $(-2,3)$ plotted correctly?
A.

B.

C.

D.

11. What is $35 \%$ of 80 ?
A. 28
B. 45
C. 115
D. 2,800
12. Use the set of numbers below to answer the question.

| 35 | 20 | 30 | 25 | 20 |
| :--- | :--- | :--- | :--- | :--- |

What is the median of the list of numbers?
A. 30
B. 20
C. 25
D. 26
13. Which rational number is the greatest?
A. 0.55
B. 0.6
C. $\frac{9}{20}$
D. $\frac{1}{2}$
14. Mikel walks down 5 flights of stairs. Each flight has 8 steps. Which describes Mikel's descent?
A. $-5+8=3$
B. $(-5)+(-8)=-13$
C. $(-5)(-8)=40$
D. $(-5)(8)=-40$
15. Use the picture below to answer the question.

## Bags of Marbles



Bag A
$\mathrm{B}=$ blue marble
$\mathrm{G}=$ green marble


Bag B
$\mathrm{W}=$ white marble
$\mathrm{P}=$ purple marble

One marble is drawn at random from each bag. What is the probability that neither marble is blue?
A. $\frac{1}{16}$
B. $\frac{3}{8}$
C. $\frac{1}{2}$
D. $\frac{3}{4}$
16. Middle-school students sold cookies in packages of 12 . On the first day, they sold $x$ packages. On the second day, they sold twice as many packages as on the first day. Which expression shows the number of cookies they sold on the second day?
A. $12(2 x)$
B. $12(x+2)$
C. $12(\mathrm{x}-2)$
D. $\frac{12 x}{2}$
17. Use the coordinate grid below to answer the question.


What is the circumference of the circle?
A. 12.56 units
B. 25.12 units
C. 50.24 units
D. 251.2 units

## 18. Use the chart below to answer the question.

Spinner Experiment

| Color | Tally | Frequency |
| :--- | :--- | :--- |
| red |  | 2 |
| green |  | 21 |
| blue |  | 2 |
| orange |  | 21 |

Students are given a colored spinner divided equally between red, green, blue, and orange sections. Students spin the spinner 100 times and collect the data in a chart. Which statement reflects the relationship between the experimental and theoretical probability of the spinner landing on green?
A. There is not enough information to calculate experimental probability.
B. The experimental probability is greater than theoretical probability.
C. The experimental probability and theoretical probability are equal.
D. The theoretical probability is greater than the experimental probability.
19. Carmen has saved $\$ 24$ to buy a DVD player that costs $\$ 96$. She plans on saving $\$ 12$ each week. The equation $12 w+24=96$ can be used to find the number of weeks, $w$, when she will have enough money to buy the DVD player. How many weeks before Carmen has enough for the DVD player?
A. 6 weeks
B. 8 weeks
C. 10 weeks
D. 12 weeks

## MATHEMATICS PRACTICE TEST

20. Use the coordinate grid below to answer the question.


What transformation of trapezoid ACDB will create trapezoid STUR?
A. dilation
B. rotation
C. reflection
D. translation
21. Use the table below to answer the question.

Median House Prices (1970-2000)

| Year | Median House Price |
| :---: | :---: |
| 1970 | $\$ 23,400$ |
| 1975 | $\$ 39,300$ |
| 1980 | $\$ 64,600$ |
| 1985 | $\$ 84,300$ |
| 1990 | $\$ 122,900$ |
| 1995 | $\$ 133,900$ |
| 2000 | $\$ 169,000$ |

Which describes the trend of the data in the table?
A. always decreasing
B. decreasing followed by increasing
C. always increasing
D. increasing followed by decreasing
22. The temperature is $8^{\circ} \mathrm{F}$. As a cold front moves in, the temperature drops $6^{\circ} \mathrm{F}$ per hour. What is the temperature at the end of 3 hours?
A. $-26^{\circ} \mathrm{F}$
B. $-10^{\circ} \mathrm{F}$
C. $5^{\circ} \mathrm{F}$
D. $26^{\circ} \mathrm{F}$

## MATHEMATICS PRACTICE TEST

23. Use the graph below to answer the question.

Money Spent on Food


A shopper spent $\$ 100$ at the store. How many dollars did the shopper spend on snacks?
A. $\$ 10$
B. $\$ 18$
C. $\$ 30$
D. $\$ 42$
24. What is the value of the expression $8 x-10$ when $x=5$ ?
A. 3
B. 4
C. 30
D. 50

Grade 7 Practice Test
Answer Key

| Number | Key |
| :---: | :---: |
| 1 | D |
| 2 | D |
| 3 | A |
| 4 | B |
| 5 | C |
| 6 | C |
| 7 | B |
| 8 | D |
| 9 | C |
| 10 | A |
| 11 | A |
| 12 | C |
| 13 | B |
| 14 | D |
| 15 | B |
| 16 | A |
| 17 | B |
| 18 | D |
| 19 | A |
| 20 | B |
| 21 | C |
| 22 | B |
| 23 | A |
| 24 | C |

