

Essential Learnings Mixed Skills Review

Multiple Choice

Identify the choice that best completes the statement or answers the question.

1. A small submarine started its dive at sea level and descended 20 feet per minute. Which integer represents the submarine's depth after six minutes?
- 120 feet
 - 14 feet
 - 120 feet
 - 14 feet

2.

Food	Calories
Pecans, 1/4 cup	175
Cheese, 1 ounce	115
Orange, 1 medium	72
Berries, 1 serving	45
Egg, 1 large	74

Which expression represents the number of calories in x oranges and 1 ounce of cheese?

- $72 + 115$
 - $72x + 115$
 - $45 + 115$
 - $45x + 115$
3. What is 7.85×10^9 in standard form?
- 785×10^5
 - 7,850,000,000
 - 785,000,000
 - 78.5×10^{10}
4. The attendance at three concerts was 948, 785, and 955. Which expression shows how to estimate the total attendance at the concert?
- $1000 + 800 + 900$
 - $1000 + 700 + 900$
 - $900 + 800 + 1000$
 - $900 + 700 + 1000$
5. Chuck walks down 5 flights of stairs. Each flight has 9 steps. Which describes Chuck's descent?
- $-5 + 9 = 4$
 - $(-5) + (-9) = -14$
 - $(-5)(-9) = 45$
 - $(-5)(9) = -45$

6. Middle school students sold cookies in packages of 10. 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?

- $10(x + 2)$
- $10(2x)$
- $10(x - 2)$
- $\frac{10x}{2}$

7. The temperature is 10° . As a cold front moves in, the temperature drops 4°F per hour. What is the temperature at the end of 2 hours?

- -2°F
- 18°F
- 2°F
- 6°F

8. What is the value of the expression $9x - 11$ when $x = 6$.

- 85
- 43
- 39
- 66

9. Carmen has saved \$24 to buy a DVD player that costs \$96. She plans on saving \$12 each week. The equation $12w + 24 = 96$ 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?

- 6
- 8
- 10
- 12

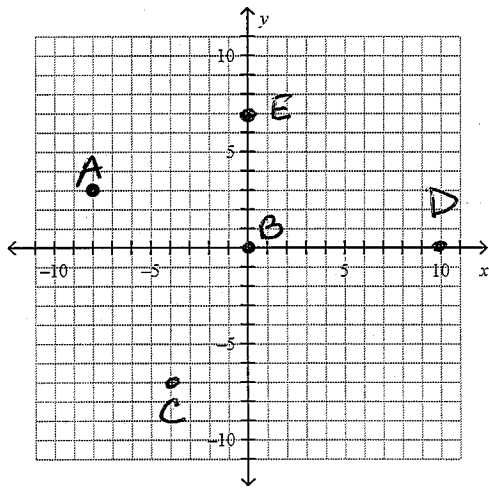
10. Find the percent of change when 51 is increased to 65. If necessary, round your answer to the nearest tenth. **Use your green NeSA Reference sheet!**

- 21.5% decrease
- 21.5% increase
- 27.5% decrease
- 27.5% increase

Short Answer

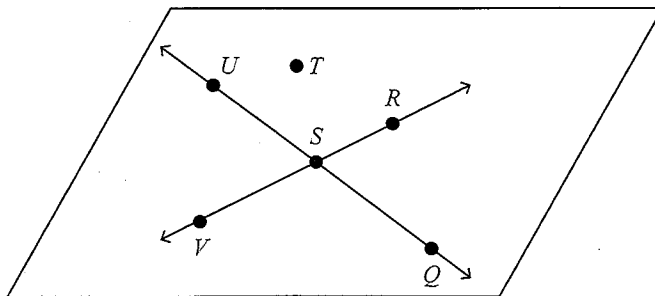
11. Find the least common multiple (LCM) of 6, 7, and 8. _____
12. Find the least common multiple (LCM) of 7, 10, and 20. _____
13. Compare the decimals 0.22 ___? 0.79.
Write < or >.
14. Order $-0.985, -0.95, \frac{3}{4}$ from least to greatest.

15. Order $-4, -8.2, 6, -9,$ and $1\frac{3}{4}$ from least to greatest. _____
16. Give the coordinates of the points A, B, C, D, E.
A(____,____) B(____,____) C(____,____) D(____,____) E(____,____)
17. Write 54% as a fraction in simplest form. _____
18. Find 30% of 70. _____
19. Find 70% of 90. _____
20. Write 33% as a decimal. _____
21. A jar is filled with buttons of various colors. If the jar has a total of 420 buttons and 85% of the buttons are green, how many green buttons are in the jar? _____
22. Write 0.93 as a percent. _____
23. Write $\frac{2}{5}$ as a percent. _____
24. Luisa sells stuffed animals. She sells a stuffed elephant for \$34.90, and the sales tax is 9% of the sale price. About how much is the sales tax on the elephant? _____

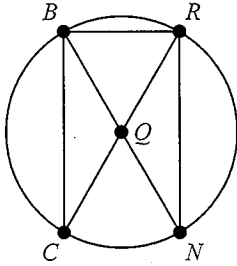


25. Identify a plane, one line, two points, two line segments, and two rays in the diagram. Make sure you have the proper symbols in each!

Plane _____ Line _____ Points _____ Line Segments _____ Rays _____



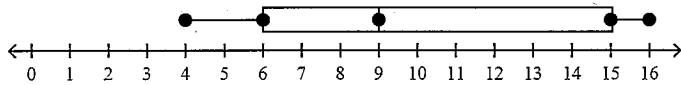
26. Identify the radii, diameters and chords in circle Q .
 radii _____ diameters _____
 chords _____



27. Simplify the expression $45 + 16 \times 2 \div 4 - 6$.

28. Write 23,700 in scientific notation. _____

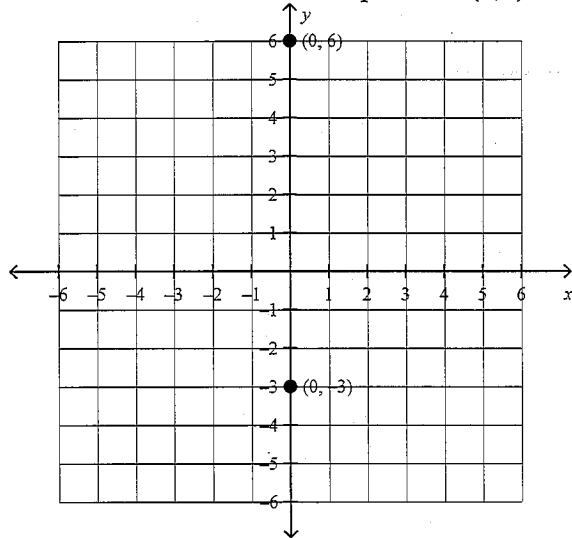
29. Name the median represented by the box-and-whisker plot shown.



Multiple Response

Identify one or more choices that best complete the statement or answer the question.

30. What is the distance between points at $(0,6)$ and $(0,-3)$?



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