Saturday Math Tutoring Program

Name: _____

7th Grade

Saturday Tutoring Program 7th Grade Mathematics Practice

2. Simplify the e expression below:

7. NS.2b (28)

$$-\frac{3}{4}\left(\frac{2}{3}-\frac{4}{3}\right)$$

Show your Work:

4. Yesterday, the temperature change over a 6-hour period of time was $-\frac{5}{6}$ degree per hour.

Which statement describes this change?

7. NS.1c (27)

A The temperature rose 6 degrees

B The temperature rose $5\frac{1}{6}$ degrees.

C The temperature fell 5 degrees

D The temperature fell $5\frac{1}{6}$ degrees

8. What property is shown in the equation below?

$$4 \times (8 \times 6) = (4 \times 8) \times 6$$

7. NS. 2c (11)

A inverse property of multiplication

B identity property of multiplication

C associative property of multiplication

D commutative property of multiplication

15. A 20-ounce bag of popcorn costs $2.80. If the unit price stays the same, how much does a 35-ounce bag of popcorn cost?

Show your Work:

7. RP.1

Answer: _____

18. A cake recipe asks for $\frac{3}{4}$ cup of sugar and $\frac{1}{4}$ cup of butter. How many cups of sugar are needed if a single cup of butter is used in the recipe?

7. RP.1

Show your Work:

Answer: _____

19. A crew of highway workers paved $\frac{2}{15}$ mile in 20 minutes. If they work at the same rate, what portion of a mile will they pave in one hour?

7. RP.1

Show your Work:

Answer: _____

21. **The ratio of time Tim spends on math homework to science homework is 5 to 4. If he spends 40 minutes on math homework, how many minutes does he spend on science homework?**

7. RP.2a

Show your Work:

Answer: _____

22. The relationship between the length of one side of a square, x, and the perimeter of the square, y, can be represented in an xy-plane by a straight line. Which of the points with coordinates (x, y) lie on the line?

7. RP.2d

A (2, 6)

B (2, 8)

C (6, 2)

D (8, 2)

25. Julia's service charge at a beauty salon was $72.60, before tax. The sales tax rate was 8%. If she added 20% of the amount before tax as a tip, how much did she pay for the service at the salon?

Show your Work: 7. RP.3

Answer: _____

26. Suzanne bought a sweater at the sale price of $25. The original cost of the sweater was $40. What percent represents the discount that Suzanne received when buying the sweater?

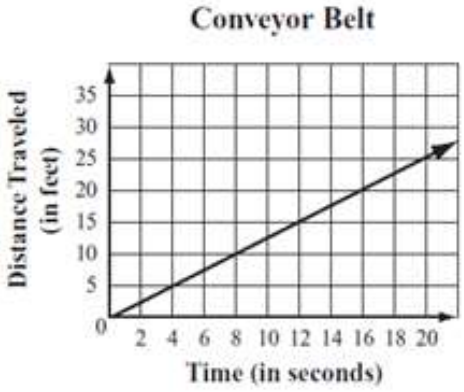
7. RP.3

Show your Work:

Answer: _____

28. The graph below shows the distance that a package travels on a conveyor belt in different numbers of seconds.

7. EE.2



If t is the time in second and d is the distance a package travels on the conveyor belt. What equation can be use to find the distance a package travel in t amount of time in seconds?

A $d = \frac{5}{4}t$

B $d = 5t$

C $d = 4t$

D $d = \frac{4}{5}t$

29. Suppose that the cost of renting a snowmobile is \$37.50 for 5 hours. If the c = cost and h = hours, which equation can be used to calculate the cost of renting per hour?

7. EE.2

A $c = \$37.50 \cdot 5h$

B $c = \frac{\$37.50}{5}h$

C $\$37.50\,c = 5h$

D $c = \$37.50 \cdot h$

31. Carmine paid an electrician x dollars per hour for a 5-hour job plus \$70 for parts. The total charge was \$320. Which equation can be used to determine how much the electrician charged per hour?

7. EE.4a

A $5x = 320 + 70$

B $5x = 320 - 70$

C $(70 + 5)x = 320$

D $(70 - 5)x = 320$

32. Which expression is equivalent to $(7x - 5) - (3x - 2)$?

7. EE.1

Show your Work:

Answer: _____

33. Find the product of the expression below in simplest form. 7. NS.2a

$$\frac{-3}{5} \times \left(\frac{-5}{12}\right)$$

Show your Work:

Answer: _____

34. Which steps can be used to solve for the value of y? 7. EE.4a

$$\frac{2}{3}(y + 57) = 178$$

A divide both sides by $\frac{2}{3}$, then subtract 57 from both sides

B subtract 57 from both sides, then divide both sides by $\frac{2}{3}$

C multiply both sides by $\frac{2}{3}$, then subtract 57 from both sides

D subtract $\frac{2}{3}$ from both sides, then subtract 57 from both sides

35. David bought a computer that was 20% off the regular price of $1,080. If an 8% sales tax was added to the cost of the computer, what was the total price David paid for it?

Show your Work:

7. EE.3

Answer: _____

36. Leo bought a used car for x dollars. One year later the value of the car was $0.88x$. Which expression is another way to describe the change in the value of the car?

A 0.12% decrease

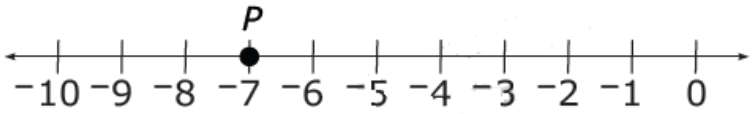
B 0.88% decrease

C 12% decrease

D 88% decrease

7. EE.2

1. What number is represented by point *P* on the number line below?



Answer: _____

2. A baker made two cakes of the same size.

- At the end of the day, there was $\frac{2}{3}$ of a chocolate cake left.
- There was $\frac{5}{6}$ of a strawberry cake left.
- The baker divided the remaining chocolate cake into 2 equal pieces and the remaining strawberry cake into 3 equal pieces.

Which cake flavor had larger pieces and by how much?

A chocolate by $\frac{1}{6}$ of a cake

B strawberry by $\frac{1}{6}$ of a cake

C chocolate by $\frac{1}{18}$ of a cake

D strawberry by $\frac{1}{18}$ of a cake

3. The Smith family went out to dinner.

- The price of the meal was $29.85.
- The sales tax was 6% of the price of the meal.
- The tip was 15% of the meal and the sales tax.

How much money did the Smith family pay for the meal, including tax and tip?

Show your Work:

Answer: _____

4. Which expression is equivalent to $^{-}4(x + 2) - \frac{1}{2}(2x - 6)$?

A $^{-}5x - 4$

B $^{-}5x - 5$

C $^{-}8x - 4$

D $^{-}8x - 5$

5. Which choice is equivalent to the expression shown below?

$$^{-}3(3y - 2x) + 2(5x - 4y)$$

A $^{-}3y + 2x$

B $^{-}11y + 6x$

C $^{-}13y + 8x$

D $^{-}17y + 16x$