

7th Grade Practice Problems

1. What is the greatest common factor of 12, 18, and 24?
2. Mei wrote the expression: $4n \times 2$. If n equals 6, what is the value of the expression?
3. Heather stands in the lunch line at school. For her meal, she can choose spaghetti or pizza. She can also have apple juice, orange juice, or milk. How many different combinations of one meal and one drink can Heather choose?
4. Samuel picked 150 strawberries at the strawberry patch. He gave away all the strawberries to 5 friends. If Samuel gave the same number of strawberries to each friend, how many strawberries did each friend receive?
5. Emily earned \$25 babysitting on Friday. On Saturday she babysat for 4 hours at a rate of \$5 per hour. On Sunday she went to the store and spent \$18 on a CD. How much money did Emily have left after buying her CD?
6. At a gymnastics competition, $\frac{3}{10}$ of the gymnasts won a ribbon. What percent of the gymnasts did NOT win a ribbon?
7. Simplify the expression: $2(2^3 - 2^2)$
8. Ben recorded the number of customers who shopped at his pet store every day for one week. The results are shown below:

42, 35, 56, 29, 42, 39, 23

What is the mean number of customers who shopped at the pet store?

9. A box contains 4 chocolate chip muffins, 2 blueberry muffins, and 1 corn muffin. A muffin is randomly chosen from the box. What is the probability that a blueberry muffin or a corn muffin is chosen? Write your answer as a fraction.
10. Jeremy is measuring water for an experiment. He fills two different containers: a 2-liter container and a half-liter container. He uses each container

only once. How many milliliters of water does Otto measure for his experiment?
(Hint: 1 liter = 1,000 milliliters)

11. The points A, B, C, D, and E are located on a straight line in order.

- The distance from A to E is 20cm.
- The distance from A to D is 15cm.
- The distance from B to E is 10cm.
- C is halfway between B and D.

What is the distance from B to C?

12. If \$1 Canadian = 80 cents, then \$1 U.S. = ? Canadian.

13. George, Sam, Andrew and Brandon each had four dates to four different Parish Center Dances with four different girls, named Cher, Connie, Melissa and Kendra. On the second date, George dated Connie and Brandon dated Kendra. On the third date, Andrew went out with Melissa and Sam went out with Connie. Melissa went out with George and Cher went out with Sam on the fourth date. What couples went out together on the first date if no pairs went out more than once?

14. What is the sum of the reciprocals of all of the factors of 24 (in simplest form)?

15. Pat the Cat runs at 5m/sec and skates at 8 m/sec. How far can Pat the Cat skate in the same time it takes Pat the Cat to run 80 m?

16. Increasing \$100 by a certain percent produces the same result as decreasing 300 by the same percent. What percent is this?

17. Kevin received a new bike for his birthday with huge tires that have an 11-inch radius. What is the minimum number of complete revolutions each tire would need to do for Kevin to ride his bike 100 yards?

18. The measures of the angles of a quadrilateral are in the ratio of 1:2:3:4. What is the measure of the smallest angle of the figure?

19. The speed of light is 3×10^8 meters per second. What is the speed of light in miles per hour? Round to the nearest million.
(1 meter = 1.094 yards and 1,760 yards = 1 mile)

20. Farmer Joe has a pumpkin patch with 360 pumpkins that he is harvesting for Halloween. However, there is a problem with some of the pumpkins. Every third pumpkin is too small. Every fourth pumpkin is rotten. Every fifth pumpkin is misshapen. How many perfect pumpkins does Farmer Joe have to sell?

Solutions

1. 6
2. 48
3. 6
4. 30 Strawberries
5. \$27
6. 70%
7. 8
8. 38 customers
9. $\frac{3}{7}$
10. 2500 milliliters
11. 2.5 cm
12. \$1.25
13. George and Cher, Brandon and Melissa, Andrew and Connie, Sam and Kendra
14. $2\frac{1}{2}$ or 2.5
15. 54 meters
16. 50%
17. 53 revolutions
18. 36 degrees
19. About 671,000,000 mph
20. 144 perfect pumpkins