



The Number System

8th Grade Math

- The temperature at noon was -3°C . By 10 P.M. on the same day the temperature decreased by 5.4° . What was the temperature at 10 P.M.?
A -8.4°C C -2.4°C
B -5.4°C D 1.6°C
- Derek spends \$3 on breakfast and \$5.50 on lunch every school day. How much does he spend on breakfast and lunch in a school week?
A \$38.50 C \$49.90
B \$42.50 D \$59.50
- What is the value of $(-4.5)(-8.25)$?
A -37.125 C 3.75
B -12.75 D 37.125
- An artist is cutting pieces of ribbon to use in a project. Each piece he cuts measures $\frac{7}{8}$ inch. The artist cuts off 5 pieces. How many total inches of ribbon has he cut off?
A $4\frac{1}{8}$ C $5\frac{5}{7}$
B $4\frac{3}{8}$ D $5\frac{7}{8}$
- An airplane took off and reached an altitude of 10,000 feet in 25 minutes. How many feet per minute, on average, did the airplane climb?
A 400
B 500
C 600
D 2,500
- The number of students enrolled at Hill School decreased by 120 students over an 8-year period. What was the average decrease in student enrollment per year?
A 8 C 15
B 12 D 20
- Alexis sold boxes of homemade granola bars for \$8.50 each. It costs her \$2.25 to bake and package each box of granola bars. What was her profit from selling each box of granola bars?
A $-\$6.25$
B \$5.38
C \$6.25
D \$10.75
- Alexandra's backpack weighs $7\frac{5}{8}$ pounds. What is the weight of her backpack expressed as a decimal?
A 7.13 C 7.625
B 7.58 D 7.85
- A sandwich costs \$4.25 and a fruit drink costs \$1.85. How much change will you get from a \$10 bill?
A \$2.90 C \$3.90
B \$3.70 D \$6.10
- Which of the following fractions is equivalent to a repeating decimal?
A $\frac{1}{5}$ C $\frac{2}{3}$
B $\frac{5}{8}$ D $\frac{3}{4}$



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11. The elevation of New Orleans, Louisiana is on average 8 feet below sea level. The elevation of El Centro, California is 39 feet below sea level. What is the difference in elevation between the two cities?

12. Jalil mixed $\frac{3}{8}$ cup of sugar with $1\frac{5}{6}$ cups of water. How many more cups of water than sugar did he use in his mixture?

13. What is the product of -3.4 and 2.5 ?

14. Fatima wants to purchase a scarf for \$45.00 and a sweater for \$77.50. If she currently has \$100, how much more money does she need to purchase the two items?

15. Arnaud paid \$350 for a rug. The price of the rug that Bill purchased was $\frac{2}{5}$ the price that Arnaud paid. How much did Bill pay for his rug?

16. The Martin family spent \$518 on groceries in one week. What is the average amount the family spent on groceries per day?

17. What is the average of -2.5 , 5.2 , 1.7 , and -0.8 ?

18. What is the quotient of $-5.2 \div 3.9$?

19. Gail read $\frac{2}{15}$ of a book on Monday and $\frac{3}{5}$ of the book on Tuesday. What fraction of the book did she read on Monday and Tuesday?

20. At Benito's school, $\frac{5}{8}$ of the students like math class. If there are 208 students, how many of them like math?

21. Kevin is $5\frac{1}{2}$ feet tall. Jane is $5\frac{3}{8}$ feet tall. Who is taller? Justify your answer.

22. Beatrice built about $\frac{1}{3}$ of a sandcastle.

Linda built $\frac{4}{7}$ of the same castle. What fraction of the sandcastle did they build together?

23. In Priya's math class there are 10 boys and 15 girls. What is the ratio of boys to girls in Priya's math class? Express your answer as a decimal.
