

Number Sense

1. The radius of the earth's orbit is 150,000,000,000 meters. What is this number in scientific notation?

A 1.5×10^{-11}
 B 1.5×10^{11}
 C 15×10^{10}
 D 150×10^9

M00213

2. $3.6 \times 10^2 =$

A 3.600
 B 36
 C 360
 D 3,600

M00036

3. Which expression represents 0.0000007 in scientific notation?

A 7×10^{-9}
 B 7×10^{-7}
 C 7×10^7
 D 7×10^9

M20956

4. The five members of a band are getting new outfits. Shirts cost \$12 each, pants cost \$29 each, and boots cost \$49 a pair. What is the total cost of the new outfits for all of the members?

A \$90
 B \$95
 C \$450
 D \$500

M00331

5. $\frac{11}{12} - \left(\frac{1}{3} + \frac{1}{4}\right) =$

A $\frac{1}{3}$
 B $\frac{3}{4}$
 C $\frac{5}{6}$
 D $\frac{9}{5}$

M02048

6. Which of the following numerical expressions results in a negative number?

A $(-7) + (-3)$
 B $(-3) + (7)$
 C $(3) + (7)$
 D $(3) + (-7) + (11)$

M00116

7. One hundred is multiplied by a number between 0 and 1. The answer has to be—

A less than 0.
 B between 0 and 50 but not 25.
 C between 0 and 100 but not 50.
 D between 0 and 100.

M00275

Number Sense

8. John uses $\frac{2}{3}$ of a cup of oats per serving to make oatmeal. How many cups of oats does he need to make 6 servings?

A $2\frac{2}{3}$
 B 4
 C $5\frac{1}{3}$
 D 9

M23015

9. If Freya makes 4 of her 5 free throws in a basketball game, what is her free throw shooting percentage?

A 20%
 B 40%
 C 80%
 D 90%

M00223

10. Some students attend school 180 of the 365 days in a year. About what part of the year do they attend school?

A 18%
 B 50%
 C 75%
 D 180%

M00047

11. What number equals $\frac{3}{8}$?

A 0.267
 B 0.375
 C 2.67
 D 3.75

M13470

12. The cost of an afternoon movie ticket last year was \$4.00. This year an afternoon movie ticket costs \$5.00. What is the percent increase of the ticket from last year to this year?

A 10%
 B 20%
 C 25%
 D 40%

M02158

13. The weekly sales of a magazine increased from 500,000 to 600,000. By what percentage did the magazine sales increase?

A 17%
 B 20%
 C 83%
 D 120%

M11242

14. Traditions Clothing Store is having a sale. Shirts that were regularly priced at \$20 are on sale for \$17. What is the percentage of decrease in the price of the shirts?

A 3%
 B 15%
 C 18%
 D 85%

M30820

Number Sense

15. Sally puts \$200.00 in a bank account. Each year the account earns 8% simple interest. How much interest will be earned in three years?

A \$16.00
B \$24.00
C \$48.00
D \$160.00

M02119

19. A salesperson at a clothing store earns a 2% commission on all sales. How much commission does the salesperson earn on a \$300 sale?

A \$6
B \$15
C \$60
D \$150

M20470

16. A pair of jeans regularly sells for \$24.00. They are on sale for 25% off. What is the sale price of the jeans?

A \$6.00
B \$18.00
C \$20.00
D \$30.00

M02870

17. A CD player regularly sells for \$80. It is on sale for 20% off. What is the sale price of the CD player?

A \$16
B \$60
C \$64
D \$96

M02425

18. Jana bought a car for \$4200 and later sold it for a 30% profit. How much did Jana sell the car for?

A \$1260
B \$2940
C \$5460
D \$7140

M10580

20. Which number equals $(2)^{-4}$?

A -8
B $-\frac{1}{16}$
C $\frac{1}{16}$
D $\frac{1}{8}$

M10015

21. $\frac{10^{-2}}{10^{-4}} =$

A 10^{-6}
B 10^{-2}
C 10^2
D 10^8

M02832

22. Which of the following is equivalent to $7^{-6} \cdot 7^4$?

A 7^{-24}
B 7^{-10}
C 7^{-2}
D 7^2

M12679

Number Sense

23. Which fraction is equivalent to $\frac{5}{6} + \frac{7}{8}$?

A $\frac{35}{48}$
B $\frac{6}{7}$
C $\frac{20}{21}$
D $\frac{41}{24}$

M12713

24. Which of the following is the prime factored form of the lowest common denominator of $\frac{7}{10} + \frac{8}{15}$?

A 5×1
B $2 \times 3 \times 5$
C $2 \times 5 \times 3 \times 5$
D 10×15

M02826

25. What is $\frac{3}{4} - \frac{1}{6}$?

A $\frac{1}{6}$
B $\frac{1}{3}$
C $\frac{7}{12}$
D $\frac{11}{12}$

M13552

26. $(3^8)^2 =$

A 3^4
B 3^6
C 3^{10}
D 3^{16}

M02406

27. $4^3 \cdot 4^2 =$

A 4^5
B 4^6
C 16^5
D 16^6

M02661

28. What is $6^2 \cdot 2^2$?

A 32
B 48
C 144
D 256

M22029

29. What is the value of $\frac{2^6 \cdot 2^4}{2^5}$?

A 4
B 10
C 16
D 32

M25206

30. The square root of 150 is between—

A 10 and 11.
B 11 and 12.
C 12 and 13.
D 13 and 14.

M02666

Number Sense

31. The square of a whole number is between 1500 and 1600. The number must be between—

- A 30 and 35.
- B 35 and 40.
- C 40 and 45.
- D 45 and 50.

M00313

35. Which number has the greatest absolute value?

- A -17
- B -13
- C 15
- D 19

M12795

32. Between which two integers is the value of $\sqrt{61}$?

- A 6 and 7
- B 7 and 8
- C 8 and 9
- D 9 and 10

M22059

33. If $|x| = 3$, what is the value of x ?

- A -3 or 0
- B -3 or 3
- C 0 or 3
- D -9 or 9

M02122

34. What is the absolute value of -4 ?

- A -4
- B $-\frac{1}{4}$
- C $\frac{1}{4}$
- D 4

M02667