1. Arrange the following numbers from **least** to **greatest**.

-3, 0, 6, -7

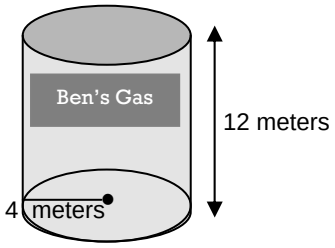
(1) 0, -3, 6, -7
(2) -3, -7, 0, 6
(3) 0, -3, -7, 6
(4) -7, 0, -3, -6
(5) -7, -3, 0, 6

2. Which is the **heaviest** number?
(1) 18(3)
(2) 15(32)
(3) 18(35)
(4) 15(33)
(5) 15(30)

Questions 3 and 4 refer to the following information.

A gasoline storage tank at Ben's Gas House is 12 meters high. The tank was filled to capacity, but a week later, Ben discovered a leak. The level of gasoline had dropped 2 meters.

3. In meters, what is the **diameter** of the base of the cylinder?
(1) 2.5 meters
(2) 5.0 meters
(3) 7.5 meters
(4) 8 meters
(5) 20 meters



4. **What fraction** of the original gasoline **remained** after the leak was repaired?
(1) $^1/_{10}$
(2) $^1/_5$
(3) $^2/_5$
(4) ½
(5) $^5/_6$

5. Which of the following pair of line segments is **parallel**?
(a) ⊢
(b) +
(c) ×
(d) //
(e) ∟

(1) a
(2) b
(3) c
(4) d
(5) e

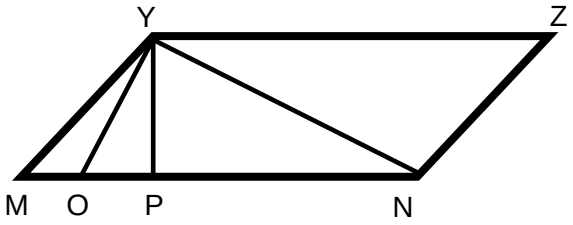
6. Which of the following pair of line segments is **perpendicular**?
(a) ×
(b) ||
(c) ⊥
(d) ⟋
(e) ⟍

(1) a
(2) b
(3) c
(4) d
(5) e

7. Which number is the **greatest**?
(a) $\frac{140}{100}$
(b) $\frac{140}{10}$
(c) $\frac{140}{16}$
(d) $\frac{140}{20}$
(e) $\frac{140}{30}$

(1) a
(2) b
(3) c
(4) d
(5) e

8. Line segments MN and YZ are parallel. Which line segment determines the distance between them?



(1) YN
(2) ZN
(3) YM
(4) YO
(5) YP

9. The decimal **.35** lies between which pairs of numbers?
(1) $^1/_5$ and ¼
(2) ¼ and $^1/_3$
(3) $^1/_3$ and ½
(4) ½ and $^3/_5$
(5) $^3/_5$ and 1

10. Find the expression for solving 1% of 85,900.
(1) .1(85,900)
(2) .001(85,900)
(3) 1(85,900)
(4) .01(85,900)
(5) .01 + (85,900)

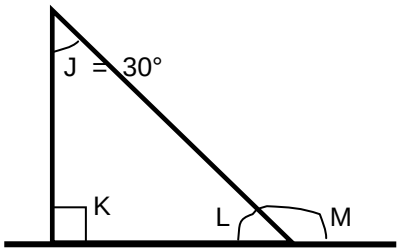
11. Find the expression for finding 1.5% of 45.92.
(1) 1.5(45.92)
(2) .15(45.92)
(3) .015(45.92)
(4) .015 + 45.92
(5) 15(45.92)

12. Arrange the following fractions from **least** to **greatest**:
(a) ½
(b) ¾
(c) $^3/_5$
(d) $^1/_3$
(1) D, A, C, B
(2) B, A, C, D
(3) A, B, C, D
(4) D, C, A, B
(5) D, B, A, C

13. Fred bought a used Volkswagen for $6090. He put 15% down. How much was the **down payment**?
(1) $9.13
(2) $91.35
(3) $913.50
(4) $9135.00
(5) Not enough information given.

14. Lena had $450. She spent $45. **What percent** did she spend?
(1) 10%
(2) 12 ¼%
(3) 15%
(4) 45%
(5) 100%

15. Find the measurement of angle M.

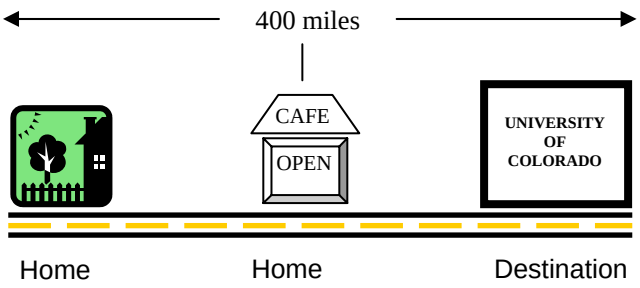


(1) 60°
(2) 120°
(3) 130°
(4) 140°
(5) 180°

16. Julie and her sister, Lisa, bought 2 sweaters at $29.00 each. They also bought 5 blouses. They spent a total of $118.00. Which expression shows how to determine the **total**?

(1) 118 + 5x = 29
(2) (5 + 29)x = 118
(3) 2(29 + 5x) = 118
(4) 119 + 2(29) = 5x
(5) 2(29) + 5x = 118

17. Susan was traveling to the University of Colorado for a campus visit. She drove 240 miles and stopped to eat at the Home Café. **What fraction of the trip had Susan completed when she stopped to eat?**



(1) $^1/_8$
(2) $^1/_6$
(3) $^3/_5$
(4) $^2/_8$
(5) $^4/_5$

18. 1.7×10^{17} is expressed in scientific notation. Which of the following expresses it as a **whole number**?

(1) 17,000
(2) 17,000,000,000
(3) 1,700,000,000,000
(4) 1,700,000,000,000,000
(5) 170,000,000,000,000,000

19. The ratio of women to men at Pueblo Iron & Steel is 2:3. If 300 men are employed there, how many **women** are employed?

(1) 20
(2) 100
(3) 200
(4) 300
(5) 450

20. A dozen apples cost $1.80. Find the cost of 4 apples.

(1) $.18
(2) $.60
(3) $.65
(4) $.72
(5) Not enough information given.

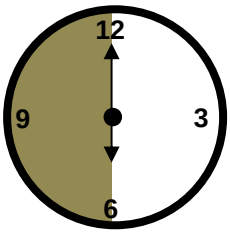
21. Pueblo Disposal picks up trash only on Wednesdays. It was picked up on Wednesday, January 2nd. When will it be picked up next?

(1) the 2nd
(2) the 5th
(3) the 8th
(4) the 15th
(5) the 23rd

22. Circumference, diameter, and radius are lengths associated with a circle. List these lengths from **shortest to longest**?

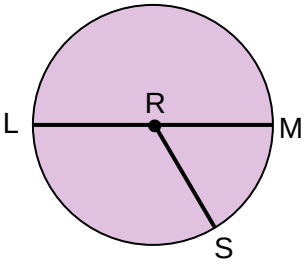
(1) circumference, diameter, radius
(2) diameter, circumference, radius
(3) diameter, radius, circumference
(4) radius, circumference, diameter
(5) radius, diameter, circumference

23. What **percent** of the clock is **shaded**?



(1) 20%
(2) 30%
(3) 40%
(4) 50%
(5) Not enough information given.

24. LM = 16. What is the length of **RS**?



(1) 5
(2) 8
(3) 10
(4) 14
(5) NEIG

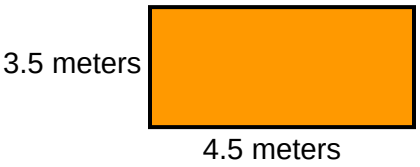
25. Melissa makes $1000 a week and saves 15%, how much does she **have left**?

(1) $150.00
(2) $850.00
(3) $950.00
(4) $975.00
(5) $980.00

26. There were 560 people at the Grand Theatre on Saturday night. How many **total** seats are in the theater if $^4/_5$ of the seats are filled?
Remember. In a fraction, the top number is the part, and the bottom number is the total.

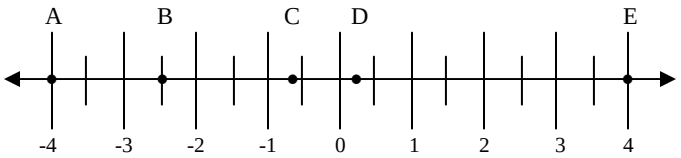
(1) 300
(2) 400
(3) 700
(4) 875
(5) 1,000

27. Which expression shows how many **square meters** are in the rectangular box?



(1) 3.5 (4.5)
(2) 3.5 + 4.5
(3) 3.5 – 4.5
(4) 3.5 (4.5) 3.5
(5) 3.5 ÷ 4.5

28. Which letter represents -0.6?
Think MONEY!!



(1) A
(2) B
(3) C
(4) D
(5) E

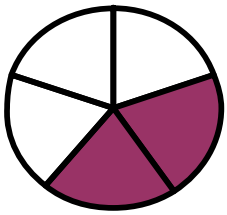
29. The value for **pi** is represented as 3.1415926525837. Which digit is in the **hundredths** place?

(1) 4
(2) 1
(3) 3
(4) 6
(5) 8

30. Which of the following represents the value of the scientific notation 2.45×10^5?

(1) 245
(2) 2,450
(3) 24,500
(4) 245,000
(5) 2,450,000

31. What **percent** of the circle is **shaded**?



(1) 2%
(2) 4%
(3) 20%
(4) 40%
(5) 50%

32. Each of the District #23 school buses is transporting 4 adults and 20 children to the Kiva Museum. Which expression shows the **total number of adults and children on all three buses**?

(1) 4 + 20
(2) 4 + (3 x 20)
(3) (3 x 4) + 20
(4) $\frac{(4 + 20)}{3}$
(5) 3 (4 + 20)

33. The density of a solid is determined by dividing its mass by its volume
d = m / v. If a solid has a density of 4 and a volume of 5, **what is its mass**?

(1) $^1/_3$
(2) 1
(3) $^4/_3$
(4) 12
(5) 20

34. To determine the rate for a bid to hand drywall, Richard uses the following formula.
C = 20h + 20n
(h) = hours
(n) = number of drywall sheets
Find the cost (C) for a job that takes 4 hours and 16 drywall sheets.

(1) $80
(2) $320
(3) $400
(4) $420
(5) Not enough information given.

35. Find the solution to the following expression.

$$\frac{(2 + 4 - 3)}{7}$$

(1) $^3/_7$
(2) 1
(3) $^7/_3$
(4) 6
(5) Not enough information given.

36. In the equation (4)(2)(2)(2)(s) = 64, what is the value of s?

(1) 1
(2) 2
(3) 3
(4) 4
(5) 5

37. If it is 5° Celsius, find the **Fahrenheit** temperature (F) using the following formula.

F = 1.8C + 32

(1) 5
(2) 7.2
(3) 10
(4) 32
(5) 41

38. If b = 2 and c = 5, find the value of d in this formula.

3b + c = d

(1) 10
(2) 11
(3) 30
(4) 37
(5) Not enough information given.

39. If y = 2, find the value of this expression.

$11/y - 1^2$

(1) 2 ½
(2) 4 ½
(3) 6
(4) 10
(5) 17

40. Richard has a total of 27 students in Computer Science 300. There are twice as many men as women. How many **<u>women</u>** are in Richard's class?

(1) 5
(2) 6
(3) 9
(4) 12
(5) 18

41. On Thursday, Jerome started working at 8:40. He finished 1¼ hours later. What time did he finish working?

(1) 9:30
(2) 9:35
(3) 9:40
(4) 9:45
(5) 9:55

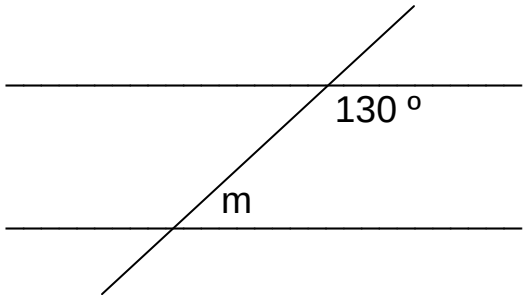
42. Pepsi products were delivered to the Student Center on Friday the 7th. When is the **<u>next Friday</u>** Pepsi products will be delivered?

(1) the 10th
(2) the 12th
(3) the 13th
(4) the 21st
(5) the 25th

43. Stella has to be at Duran Dental for an appointment at 3:20 on Friday. It takes 45 minutes to get there. What time should Stella leave to get there on time?

(1) 2:30
(2) 2:35
(3) 2:40
(4) 4:05
(5) Not enough information given.

44. Find the value of angle m.



(1) 20°
(2) 30°
(3) 50°
(4) 150°
(5) 180°