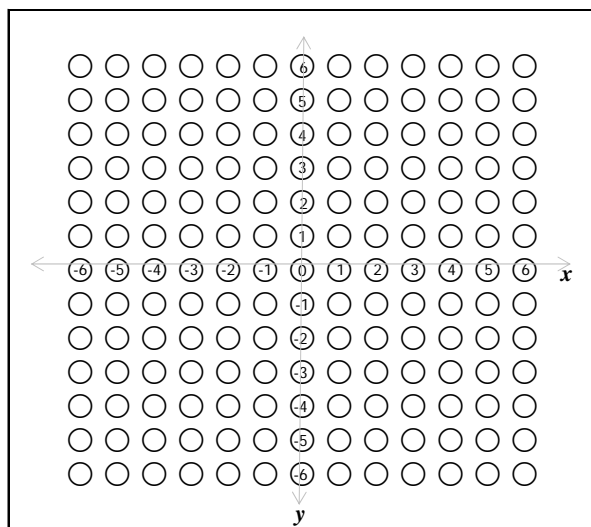# Final Math Review – 626

1. Mark the point that corresponds to (-4, 3) on the graph.

2. Paul's garden measures 40 feet by 16 feet. He wants to leave a 4 foot opening for a gate. Which expression gives the number of feet of fencing he needs?
    (1) 40 + 16
    (2) (2 x 40) + (2 x 16) + 4
    (3) (2 x 40) + (2 x 16) - 4
    (4) (40 x 16)
    (5) 2 (40 – 16)

3. One set of curtains requires $2 \frac{1}{3}$ yards of material. Sophia wants to make 5 sets of curtains. **Approximately**, how many yards of material does she need? <u>Can you tell this could be a proportion?</u>
    (1) $7 \frac{1}{3}$
    (2) $9 \frac{2}{3}$
    (3) $10 \frac{1}{3}$
    (4) $11 \frac{1}{3}$
    (5) $11 \frac{2}{3}$

Question 4 refers to the number line below.
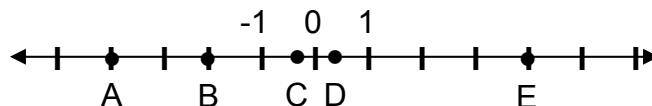
4. Which letter on the number line above represents -0.4?
    (1) A
    (2) B
    (3) C
    (4) D
    (5) E

5. Traveling at 55 miles per hour, approximately how many hours will it take Michael to drive 250 miles?
    (1) between 1 and 2 hours
    (2) between 2 and 3 hours
    (3) between 3 and 4 hours
    (4) between 4 and 5 hours
    (5) between 5 and 6 hours

6. The perimeter of the following figure is 78". The width is 9". **<u>Find the length</u>**.

9"

    (1) 18"
    (2) 30"
   (3) 60"
    (4) 180"
    (5) 190"

7. Find angle MNO.
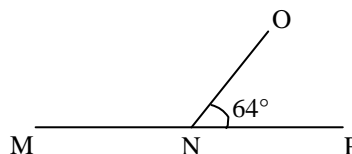
    (1) 24°
    (2) 26°
    (3) 106°
    (4) 116°
    (5) 244°

Final Math Review – 626

Questions 8 and 9 refer to the following information.

On a U.S. road map, the map scale is 2 inches = 240 miles.

8. Albuquerque is about 3 inches from Amarillo. How many miles apart are Albuquerque and Amarillo?
    (1)   12 miles
    (2)   360 miles
    (3)   480 miles
    (4)   474 miles
    (5)   720 miles

9. Nashville is 1200 miles from Memphis. How many inches apart is Nashville from Memphis?
    (1)   10 inches
    (2)   11 inches
    (3)   12 inches
    (4)   13 inches
    (5)   14 inches

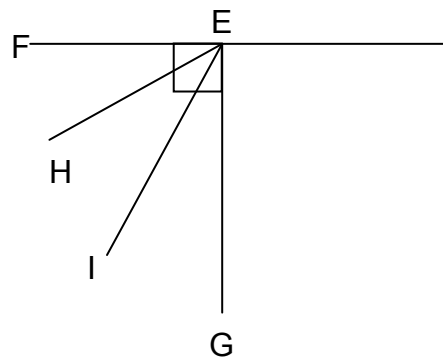10. Mark the point that is a mirror image of point m on the **y axis.**
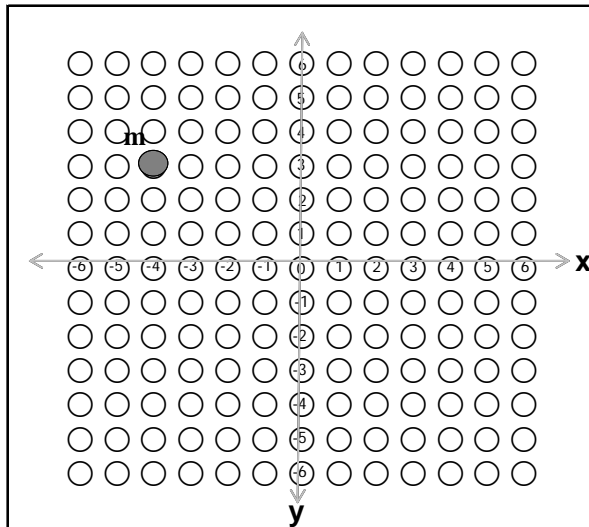
11. Bill, Sal, and Robert work together at El Paso Boys Ranch. Determine their **average**, salary if Bill's salary is $8 per hour, Sal's is $9 per hour, and Robert's is $13 per hour.

12. **∠FEG is a right angle**.
    ∠FEH is 23°
    ∠HEI is 37°

    How many degrees is ∠IEG?
    (1)   5°
    (2)   30°
    (3)   60°
    (4)   67°
    (5)   120°

Questions 13 and 14 refer to the following information.

The East High School Tigers had the following scores last season.

Tigers' Basketball Scores

Game 1	53
Game 2	49
Game 3	54
Game 4	57
Game 5	56
Game 6	55

13. What is the **mean** score for the Tigers' **first 3 games** of the season
   (1)   52
   (2)   53
   (3)   55
   (4)   62
   (5)   324

14. What is the **median** score for the Tigers' **6 games**?
   (1)   52.5
   (2)   53.5
   (3)   54.5
   (4)   59
   (5)   63

15. Rocky makes $25,000 a year. His employer withholds $2,500 from his salary. What is the **ratio** of his **take home pay** to the amount **withheld**?
   (1)   1:9
   (2)   9:1
   (3)   1:10
   (4)   10:1
   (5)   9:10

16. For the expression 9h < 90, what is a possible value of h?
   (1)   8
   (2)   10
   (3)   11
   (4)   12
   (5)   13

17. Which of the following is equal to $12^2 + 8^3$?
   (1)   (12 – 8) (12 – 8)
   (2)   (12) (12) + (8) (8) (8)
   (3)   (12 – 8)
   (4)   (12 x 2) + (8 x 3)
   (5)   (12 + 12) – (8 + 8 + 8

18. A yardstick casts a 7 foot shadow at the same time a pole casts a 21 foot shadow. Find the **height** of the pole.
   (1)   9'
   (2)   11'
   (3)   14'
   (4)   29'
   (5)   63'

19. During the winter, Jenny's heating bills were $150 in November, $180 in December, $209 in January and $205 in February. Determine the **average** or **mean** monthly amount she paid for heat during these months.

|				
	⊘	⊘	⊘	
⊙	⊙	⊙	⊙	⊙
⓪	⓪	⓪	⓪	⓪
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

20. Jim drove 300 miles on 15 gallons of gas. How many miles did he drive on **one** gallon?
    (1)   16
    (2)   17
    (3)   18
    (4)   19
    (5)   20

21. On Monday, Wednesday, and Friday, Cassandra gets up at 6:00 a.m. On Tuesdays she is up at 5:00 a.m., and Thursdays she sleeps until 7:00 a.m. For these **five** days, what is the **average** time Cassandra gets up?
    (1)   4:00
    (2)   5:00
    (3)   6:00
    (4)   7:00
    (5)   8:00

22. ∠ KLM is 52°
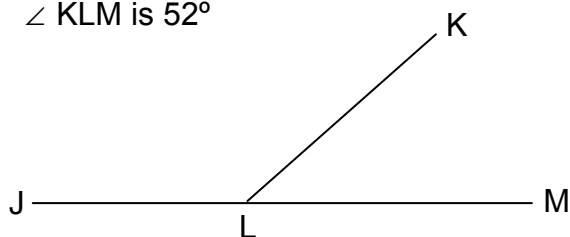
    What is the measurement of ∠ **JLK**?
    (1)   152°
    (2)   128°
    (3)   138°
    (4)   148°
    (5)   180°

23. What is the **area** of a lot that is 14.5 meters long and 9 meters wide?
    (1)   13.5 meters²
    (2)   47 meters²
    (3)   120.5 meters²
    (4)   130.5 meters²
    (5)   131 meters²

24. The scores of the first three games of the Palmer High School football team are shown below. What is Palmer's **average** score for these three games?
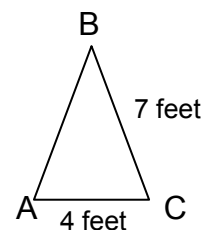
Palmer Football Game Scores	
Game 1	35
Game 2	29
Game 3	14

    (1)   26
    (2)   27
    (3)   28
    (4)   32
    (5)   77

25. If triangle ABC is an **isosceles** triangle, what is the **perimeter** of the triangle?
    (1)   4'
    (2)   7'
    (3)   11'
    (4)   18'
    (5)   22'

26. The square root of 26 is between which of the following pairs of numbers?
    (1)   2 and 3
    (2)   3 and 4
    (3)   4 and 5
    (4)   5 and 6
    (5)   6 and 7

27. A fence post casts a 4 foot shadow at the same time that a tree next to it casts a 64 foot shadow. How **tall** is the tree?
    (1)   66
    (2)   70
    (3)   74
    (4)   78
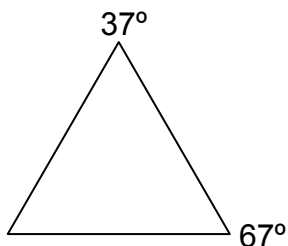   (5)   Not enough information is given.

28. The perimeter of a rectangle is 37 feet. The width is 7 ½ feet. **Find the length**.
    (1)   9 feet
    (2)   10 feet
    (3)   11 feet
    (4)   22 feet
    (5)   24 feet

29. Mary's job pays her $6.75 per hour. Which of the following expressions best represents her **total earnings** if she works 2 hours on Monday, 3 hours on Tuesday, 4 hours on Wednesday, 5 hours on Thursday, and 6 hours on Friday?
    (1)   2 + 3 + 4 + 5 + 6
    (2)   10 + 6.75
    (3)   10 (6.75)
    (4)   20 + 6.75
   (5)   20 (6.75)

Question 30 is based on the following figure.

37°

67°

30. The triangle above has three angles. One angle measures 37°. Another angle measures 67°. How many degrees does the third angle measure?
    (1)   28°
    (2)   34°
    (3)   76°
    (4)   256°
    (5)   Not enough information is given.

31. An appliance salesman receives a commission of 15% percent of all sales. Last week he sold a refrigerator priced at $755, a dishwasher priced at $450, and a range priced at $535. What is the **commission** he earned for the week?
    (1) $26.10
    (2) $104.40
    (3) $116.00
    (4) $261.00
    (5) $1740.00

32. The dimensions of a rectangular wading pool are shown in the diagram below. Which one of the expressions below represents the maximum **volume** of water it can hold?

2

3.5

5
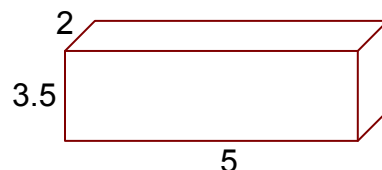
    (1)   2 (3.5) (5)
    (2)   3.5 (2 + 5)
    (3)   2 (3.5 + 5)
    (4)   2 (2) + 2 (3.5) + 2 (5)
    (5)   2 (3.5) + 2 (5)

33. Evaluate $2n^2 - 3b$, if $n = 3$ and $b = 1$.
    (1)   8
    (2)   9
    (3)   15
    (4)   21
    (5)   33

34. The Wildlife Commission released 100 fish into the Colorado River. They released 55 brown trout and 45 rainbow trout. Which of the following expressions represents the **probability** of a passing fish being a rainbow trout?

    (1) $9/11$

    (2) $9/20$

    (3) $11/20$

    (4) $7/20$

    (5) $7/11$

35. Susie was curious about the height of a radio tower near her house. On a sunny day, her brother John stood next to the tower. Both John and the tower cast a shadow. The picture below represents John and the tower. John is 6 feet tall and casts a 20 foot shadow. The tower casts a 90 foot shadow. How many feet **tall is the tower**?
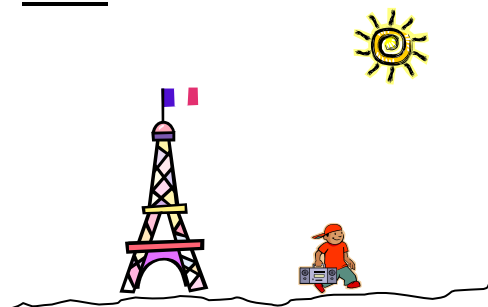
    (1) 17 feet
    (2) 27 feet
    (3) 37 feet
    (4) 54 feet
    (5) 70 feet

36. A 5 foot tall co worker cast a 9 foot shadow at the same time that a 50 foot flagpole casts a shadow. How tall is the flagpole's **shadow**?
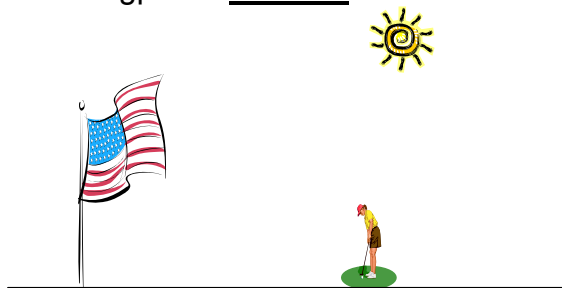
    (1) 40
    (2) 45'
    (3) 55'
    (4) 90'
    (5) 450'

37. A carpenter contracts to do a job. The costs for the job are $2000 for materials, $500 for labor, and $150 for equipment rental. What would be the **total** cost of the job if the cost of materials were increased by 15%?

    (1) $300
    (2) $2300
    (3) $2600
    (4) $2800
    (5) $2950

38. The three deductions withheld from Floyd's pay each month are $300 for federal tax, $70 for social security, and $50 for medical insurance. If Floyd's gross pay is $1800, which expression represents his **take home pay**?

    (1) 1800 - (300 – 70 – 50)
    (2) 1800 + (300 + 70 + 50)
    (3) 1800 – (300 + 70 + 50)
    (4) (300 – 70 – 50) + 1800
    (5) (300 + 70 + 50) + 1800

39. If your car's odometer read 27,511.8, and you traveled for 4 hours at 55 mph, what will the new reading on the odometer be at the end of the 4 hours?
   (1)   27,291.8
   (2)   27,489.8
   (3)   27,533.8
   (4)   27,533.9
   (5)   27,731.8

40. Shown below is a record of the amount of gasoline Mylana used. Which expression represents the average number of gallons of gas she used during the **first four months** of the year?

Monthly Gas Use	
Month	Gallons
1/93	150
2/93	162
3/93	148
4/93	166
5/93	173

   (1) $\dfrac{(150 + 162 + 148 + 166 + 173)}{5}$

   (2) $\dfrac{(150 + 162 + 148 + 166 + 173)}{4}$

   (3) $\dfrac{(150 + 162 + 148 + 166)}{3}$

   (4) $\dfrac{(150 + 148 + 166)}{3}$

   (5) $\dfrac{(150 + 162 + 148 + 166)}{4}$

41. An oak tree casts a 60 foot shadow at the same time a 10 foot railroad crossing light casts a 20 foot shadow. Find the **height** of the tree.

   (1)   20 feet
   (2)   25 feet
   (3)   30 feet
   (4)   40 feet
   (5)   50 feet

42. Aaron and his three brothers split the cost of breakfast. The bill comes to $19.20.   What is Aaron's **share**?
   (1) $4.62
   (2) $4.80
   (3) $6.00
   (4) $6.97
   (5)   Not enough information is given.

43. The Mestas Family drove 1020 miles on 30 gallons of gas. How far did the Mestas travel on **each** gallon.

7

44. Find the **median** GED scores in the following: 43, 49, 48, 47, and 35.
   (1) 35
    (2) 43
    (3) 47
    (4) 48
    (5) 49

45. At Armijo Hardware, the prices of 4 x 8 foot sheets of ½ inch thick plywood are shown below. Which expression represents the cost of buying 3 grade A sheets and 2 grade C sheets?

Lumber	Prices
4' x 8' ½ inch plywood	
Grade A	$29.95
Grade B	$24.65
Grade C	$21.45

    (1) (2) (21.45) + (3) (24.65)
    (2) (2) (21.45) + (3) (29.95)
    (3) (2) (29.95) + (3) (24.65)
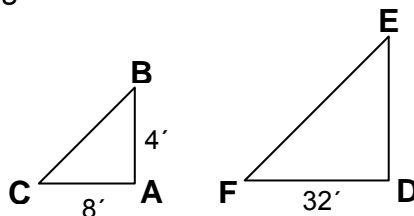   (4) (2 + 3) (24.65 + 29.95)
    (5) (2 + 3) (29.95 + 21.45)

46. Find the measurement of **angle E**.
    (1) 40°
    (2) 90°
    (3) 110°
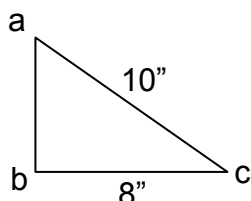   (4) 140°
    (5) 170°
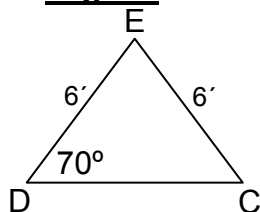
47. Find the length of side ED.
    (1) 16'
    (2) 24'
    (3) 28'
    (4) 40'
    (5) 42'

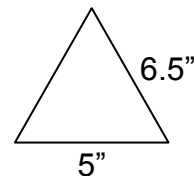48. Find the length of side ab.
    (1) 6"
    (2) 8"
    (3) 12"
    (4) 14"
    (5) 16"

49. Find the **perimeter** of the isosceles triangle.
    (1) 18"
    (2) 25"
    (3) 32"
    (4) 42"
    (5) 55"

50. How many total yards of material does Sandra need to make 3 sets of curtains when each set requires 2 ¼ yards?
    (1) 6 ¾ yards
    (2) 7 yards
    (3) 8 yards
    (4) 16 ¼ yards
    (5) 17 ¼ yards

51. 20% of the 60 students in class are Hispanic. How many students are **not Hispanic**?
    (1) 12
    (2) 40
    (3) 48
    (4) 72
    (5) Not enough information is given.

52. Carl cut 1½ feet off a board that was 7¼ feet long. How much of the board **was left**?
    (1) 5 feet
    (2) 5.75 feet
   (3) 7.00 feet
    (4) 8.00 feet
    (5) 8.75 feet

53. Gary weighs 186 pounds on earth. He would weigh $\frac{1}{6}$ as much on the moon. **Approximately**, how much would Gary weigh on the moon?
    (1) 30 pounds
    (2) 41 pounds
    (3) 155 pounds
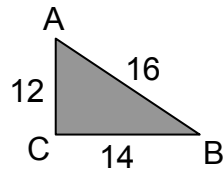   (4) 217 pounds
    (5) Not enough information is given.
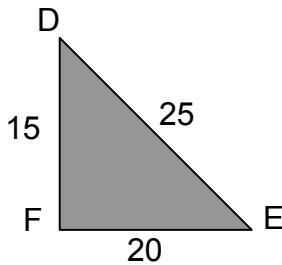
54. In the isosceles triangle below, what are the values of the two unmeasured angles if the vertex (angle R) equals 40º?

(1) S = 70º   T = 70º
(2) S = 76º   T = 76º
(3) S = 81º   T = 81º
(4) S = 87º   T = 87º
(5) S = 140º   T = 140º
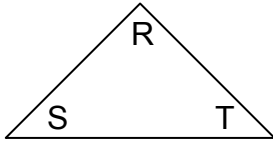
55. What is the **ratio** of DF to AC?

(1) 4:5
(2) 5:4
(3) 5:11
(4) 11:5
(5) NEIG

56. If you are charged $2.00 for each mile you travel and $.20 for every tenth of a mile, how much would you be charged for 2.3 miles?

57. The cost of a suit was $200.
On Friday, the price went up by 12%.
Which of the following expressions represents the **total** price of the suit on Friday after it went up by 12%?
(1) (200) (12)
(2) (200) (.12)
(3) (200) (.12) + .12
(4) (200) (.12) + 200
(5) $\frac{(200)}{.12}$

58. Kevin buys a pair of Levis for $35.00, and he puts a 30% markup on them. What is the **total** price Kevin will charge for the Levis?

	⊘	⊘	⊘	
⊙	⊙	⊙	⊙	⊙
⓪	⓪	⓪	⓪	⓪
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

59. Dolores bought 2.5 pounds of sausage at $1.90 per pound and 3 pounds of ground beef at $1.65 per pound. Which expression determines the **total** cost of her purchase?
    (1) (2.5 x 1.90) + (3 x 1.65)
    (2) (2.5 x 1.65) + (3 x 1.90)
    (3) (2.5 + 3) x 1.90
    (4) 1.90 + 1.65
    (5) (2.5 + 3) x 1.65

60. Which of the following expresses 334,274 in scientific notation?
    (1) 3.34274×10^5
    (2) 3.34274×10^6
    (3) 33.4274×10^6
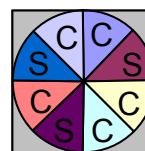   (4) 334.274×10^5
    (5) 3342.74×10^3

61. Which represents a 30" diagonal television?
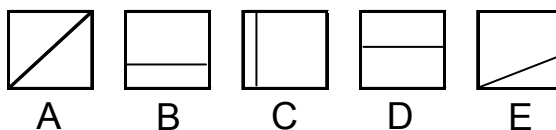
A   B   C   D   E

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

62. What percent of the days on the chart are cloudy?

    C = cloudy
    S = sunny

    (1) 5%
    (2) 37 ½ %
    (3) 50%
    (4) 60%
    (5) 62 ½ %

63. What is the value of $-2 + 3^2$?
    (1) 1
    (2) 4
    (3) 7
    (4) 8
    (5) 11

64. Find the value of $(12 - 1)^2$?
    (1) 11
    (2) 12
    (3) 111
    (4) 121
    (5) 122

65. In a herd of 10,000 reindeer the size of the herd increased by 15%. What is the size of the herd after the increase?
    (1) 1,500
    (2) 8,500
    (3) 10,150
    (4) 11,500
    (5) 15,000