

SAMPLE MATH TEST- PAINTING

Review the following budget and answer questions 1-5

Smith Construction's Budget

| <i>Income</i> | <i>January</i> | <i>February</i> | <i>March</i> | <i>April</i> | <i>May</i> | <i>June</i> |
|----------------|----------------|-----------------|--------------|--------------|------------|-------------|
| Boulder School | \$50,000 | \$30,000 | \$20,000 | \$25,000 | \$30,000 | \$10,000 |
| River Bridge | \$50,000 | \$20,000 | \$20,000 | \$30,000 | \$25,000 | \$15,000 |
| Total Income | \$100,000 | \$50,000 | \$40,000 | \$55,000 | \$55,000 | \$25,000 |

| <i>Expenses</i> | <i>January</i> | <i>February</i> | <i>March</i> | <i>April</i> | <i>May</i> | <i>June</i> |
|-----------------|----------------|-----------------|--------------|--------------|------------|-------------|
| Labor | \$10,000 | \$15,000 | \$12,000 | \$17,000 | \$15,000 | \$15,000 |
| Equipment | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 |
| Materials | \$15,000 | \$5,000 | \$10,000 | \$10,000 | \$15,000 | \$5,000 |
| Subcontracts | \$30,000 | \$20,000 | \$25,000 | \$20,000 | \$15,000 | \$10,000 |
| Total Expenses | \$60,000 | \$45,000 | \$52,000 | \$52,000 | \$50,000 | \$35,000 |

1. At the end of 6 months what will be the total profit of Smith Construction?
A) \$31,000 B) \$3,000 C) \$5,000 D) \$10,000
2. How many months will Smith Construction have a positive profit?
A) 1 Month B) 2 Months C) 3 Months D) 4 Months
3. What is Smith Construction's total income for 6 months?
A) \$225,000 B) \$325,000 C) \$375,000 D) \$400,000
4. What is Smith Construction's monthly average labor expense?
A) \$12,000 B) \$15,000 C) \$14,000 D) \$14,500
5. Which month is the most profitable?
A) January B) February C) March D) April E) None of the above

6. Arrange the following fractions from smallest to largest: $\frac{1}{2}$, $\frac{2}{3}$, $\frac{1}{6}$, $\frac{5}{8}$.
 A) $\frac{1}{2}$, $\frac{2}{3}$, $\frac{1}{6}$, $\frac{5}{8}$ B) $\frac{2}{3}$, $\frac{1}{2}$, $\frac{1}{6}$, $\frac{5}{8}$
 C) $\frac{1}{6}$, $\frac{5}{8}$, $\frac{1}{2}$, $\frac{2}{3}$ D) $\frac{1}{6}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{2}{3}$
7. Tom has \$105.00 in his wallet. He buys a sandwich for \$3.90 and returns \$50.00 to Sam that he borrowed a month ago. How much money does Tom have left?
 A) \$96.10 B) \$49.10 C) \$51.10 D) \$31.10
8. Joe has two job offers. Job "A" pays \$475.00 per week and job "B" pays \$12.50 per hour. In a 40-hour workweek, which job pays more and by how much?
 A) Job "A" \$25.00 per week more B) Job "A" \$125.00 per week more
 C) Job "B" \$25.00 per week more D) Job "B" \$125.00 per week more

Review the following table and answer questions 9-13

| Age | Total Weight | No. of Students |
|-----|--------------|-----------------|
| 10 | 330 | 3 |
| 11 | 250 | 2 |
| 12 | 115 | 1 |
| 13 | 520 | 4 |
| 14 | 400 | 3 |
| 15 | 310 | 2 |

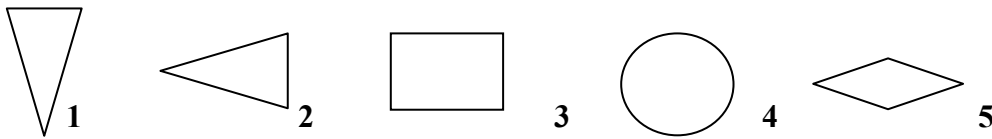
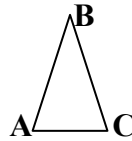
9. How many students were weighed?
 A) 3 B) 13 C) 15 D) 17
10. What is the average weight of 13-year-old students?
 A) 120 lbs B) 125 lbs. C) 130 lbs. D) 140 lbs
11. What was the average weight of all students?
 A) 118.33 lbs B) 123.33 lbs. C) 128.33 lbs. D) 128.00 lbs.

22. Which of these figures is incorrectly named?



- A) Square B) Trapezoid C) Triangle D) Sphere

23. Which of these figures are similar to figure ABC?



- A) Figures 1 and 3 B) Figures 2 and 5 C) Figures 1 and 2 D) Figures 1, 2 and 5

24. What is the average of the following numbers? 5, 15, 20, 40

- A) 15.5 B) 20 C) 25 D) 30

Review the following rental schedule and answer questions 25-28

| Four County Rentals | | |
|---|------------------------|--------------------------|
| <i>Office Hours Monday – Friday 8:00AM – 5:00PM</i> | | |
| Power Saw | \$15.00 per day | \$60.00 per week |
| Compactor | \$45.00 per day | \$200.00 per week |
| Tractor | \$50.00 per day | \$225.00 per week |

25. A contractor wants to rent a power saw for 5 days. How much will it cost?

- A) \$60.00 B) \$75.00 C) \$45.00 D) \$30.00

26. A contractor rented a compactor and tractor for 1 day. He paid with a \$100 bill. How much change did he receive?

- A) \$15.00 B) \$10.00 C) \$5.00 D) \$0.00

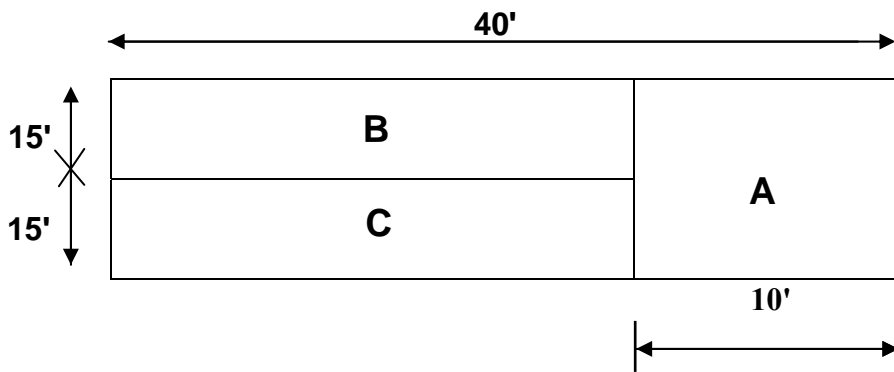
27. A contractor needs a tractor for 4 days. How much more will it cost him to keep it for a week?

- A) \$50.00 B) \$25.00 C) \$0.00 D) \$20.00

28. A contractor wants to rent a saw for 3 days and a tractor for 2 weeks. What is The total rental cost?

- A) \$480.00 B) \$465.00 C) \$495.00 D) \$295.00

Review the following plan for a classroom. Then answer questions 29-32

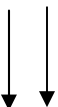
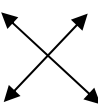
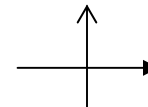


29. How many square feet of carpet are required to cover area 'A'?

- A) 400 square feet B) 450 square feet
C) 300 square feet D) 150 square feet

30. Rubber base will be used around the perimeter of the room. How many feet are needed?

- A) 140 feet B) 80 feet
C) 90 feet D) 120 feet

34. The electrician wants to find a cheaper shop to rent in order to double his tool allowance. How much can he spend on rent?
- A) \$750.00 B) \$600.00 C) \$450.00 D) \$300.00
35. What fraction of the electrician's monthly expenses is spent on vehicles including gas?
- A) \$650.00 B) $\frac{13}{100}$ C) $\frac{9}{40}$ D) $\frac{13}{40}$
36. Which of the following is the smallest number?
- A) 789.0 B) 0.0789 C) 0.7890 D) 7.089
37. Which of these number sentences is true?
- A) $234 > 236$ B) $10 + 6 = 18$ C) $2002 < 1998$ D) $10 \div 2 = 5$
38. If George used the numbers 8 and 2 which resulted in the answer 4, which operation did George use?
- A) + B) - C) \div D) \times
39. Six bolts are needed at each beam joint. If there are seven joints, how many bolts were required?
- A) 13 B) 42 C) 21 D) 24
40. Which set of lines are parallel?
-  **A**  **B**  **C**
- A) A B) B C) C D) B & C
41. At the hardware store, Joe bought a saw for \$18.50, a saw blade for \$3.25 and a hammer for \$9.50. The prices include sales tax. How much money did Joe pay for the tools?
- A) \$31.00 B) \$31.25 C) \$31.50 D) none

42. Which of these groups of numbers shows counting by three?

A) 172, 169, 166, 163

B) 2, 4, 6, 8

C) 124, 130, 136, 142

D) 925, 930, 935, 940

43. If the same number is used in both boxes, which of these statements is true?

A) if $5 + \hat{1} = 10$, then $10 - \hat{1} = 6$

B) if $7 + \hat{1} = 14$, then $14 - \hat{1} = 7$

C) if $2 + 9 = \hat{1}$, then $\hat{1} - 5 = 7$

D) if $10 - \hat{1} = 8$, then $\hat{1} + 2 = 8$

44. Bill uses 2 packages of screws each day. He works 3 days a week and there are 20 screws in each package. How many screws does Bill use in a week?

A) 60

B) 80

C) 120

D) 140

45. What does the 3 in 1,322 mean?

A) 3

B) 30

C) 300

D) 3000

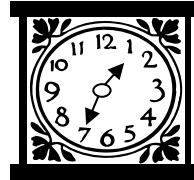
46. What time will it be in 50 minutes?

A) 2:20

B) 2:25

C) 2:35

D) 2:45



47. Which group of numbers is missing from this number pattern?

7, 12, _____, _____, _____, 32, 37

A) 17, 21, 27,

B) 17, 22, 27,

C) 16, 21, 26,

D) 17, 23, 27

48. Which number sentence does not have an answer of 5 when you solve it?

A) $7 - 2 = \hat{1}$

B) $5 \times 1 = \hat{1}$

C) $3 + 2 = \hat{1}$

D) $3 \div 2 = \hat{1}$

49. What operation sign goes in the box to make this number sentence true?

$5 \square 5 = 25$

A) X

B) \div

C) -

D) +

50. What number is missing from this number sequence?

4, _____, 12, 16, 20

A) 6

B) 7

C) 8

D) 10

Applied Mathematics

Answers

| | | | |
|-------|-------|-------|-------|
| 1. A | 2. D | 3. B | 4. C |
| 5. A | 6.D | 7. C | 8. C |
| 9.C | 10. C | 11. C | 12. A |
| 13. D | 14. C | 15. B | 16.B |
| 17. B | 18. C | 19. B | 20.A |
| 21. C | 22.D | 23. C | 24. B |
| 25. B | 26. C | 27. B | 28. C |
| 29. C | 30. A | 31. D | 32. A |
| 33. C | 34. B | 35. D | 36. C |
| 37. D | 38. C | 39. B | 40. A |
| 41. B | 42. A | 43. B | 44. C |
| 45. C | 46. B | 47. B | 48. D |
| 49. A | 50. C | | |