
➤ **Easy**

1. A cyclist travels at 12 miles per hour. How many minutes will it take him to travel 24 miles?
- (A) 1
 - (B) 2
 - (C) 30
 - (D) 60
 - (E) 120

➤ **Medium**

2. Point M is located 8 miles East of point P . If point P is located 6 miles North of another point A , then how far is point A from point M ?
- (A) 4
 - (B) 5
 - (C) 6
 - (D) 7
 - (E) 10
3. A wheat bag weighs 5 pounds and 12 ounces. How much does the bag weigh in pounds?
- (A) $5 \frac{1}{4}$
 - (B) $5 \frac{1}{2}$
 - (C) $5 \frac{3}{4}$
 - (D) $6 \frac{1}{4}$
 - (E) $6 \frac{3}{4}$
4. One ton has 2000 pounds, and one pound has 16 ounces. How many packets containing wheat weighing 16 pounds and 4 ounces each would totally fill a gunny bag of capacity 13 tons?
- (A) 1600
 - (B) 1700
 - (C) 2350
 - (D) 2500
 - (E) 8000

➤ **Hard**

5. An old man distributed all the gold coins he had to his two sons into two different numbers such that the difference between the squares of the two numbers is 36 times the difference between the two numbers. How many coins did the old man have?
- (A) 24
 - (B) 26
 - (C) 30
 - (D) 36
 - (E) 40
6. Patrick purchased 80 pencils and sold them at a loss equal to the selling price of 20 pencils. The cost of 80 pencils is how many times the selling price of 80 pencils?
- (A) 0.75
 - (B) 0.8
 - (C) 1
 - (D) 1.2
 - (E) 1.25

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7. A man walks at a rate of 10 mph. After every ten miles, he rests for 6 minutes. How much time does he take to walk 50 miles?
- (A) 300
 - (B) 318
 - (C) 322
 - (D) 324
 - (E) 330
8. A project has three test cases. Three teams are formed to study the three different test cases. James is assigned to all three teams. Except for James, each researcher is assigned to exactly one team. If each team has exactly 6 members, then what is the exact number of researchers required?
- (A) 10
 - (B) 12
 - (C) 14
 - (D) 15
 - (E) 16
9. The combined salaries of three brothers is \$90,000. Mr. Big earns twice what Mr. Small earns, and Mr. Middle earns $1\frac{1}{2}$ times what Mr. Small earns. What is the smallest salary of the three brothers?
- (A) 20,000
 - (B) 22,000
 - (C) 25,000
 - (D) 30,000
 - (E) 40,000

The next two questions refer to the discussion below:

Mike and Fritz ran a 30-mile Marathon. Mike ran 10 miles at 10 miles per hour and then ran at 5 miles per hour for the remaining 20 miles. Fritz ran the first one-third (by time) of the run at 10 miles per hour and the remaining two-thirds of the run at 5 miles per hour.

10. How much time in hours did Mike take to complete the Marathon?
- (A) 3
 - (B) 3.5
 - (C) 4
 - (D) 4.5
 - (E) 5
11. How much time in hours did Fritz take to complete the Marathon?
- (A) 3
 - (B) 3.5
 - (C) 4
 - (D) 4.5
 - (E) 5
12. When the price of oranges is lowered by 40%, 4 more oranges can be purchased for \$12 than can be purchased for the original price. How many oranges can be purchased for 24 dollars at the original price?
- (A) 8
 - (B) 12
 - (C) 16
 - (D) 20
 - (E) 24

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13. John has \$42. He purchased fifty mangoes and thirty oranges with the whole amount. He then chose to return six mangoes for nine oranges as both quantities are equally priced. What is the price of each Mango?
- (A) 0.4
(B) 0.45
(C) 0.5
(D) 0.55
(E) 0.6
14. In a market, a dozen eggs cost as much as a pound of rice, and a half-liter of kerosene costs as much as 8 eggs. If the cost of each pound of rice is \$0.33, then how many cents does a liter of kerosene cost? [One dollar has 100 cents.]
- (A) 0.33
(B) 0.44
(C) 0.55
(D) 44
(E) 55
15. Mr. Smith's average annual income in each of the years 1966 and 1967 is x dollars. His average annual income in each of the years 1968, 1969, and 1970 is y dollars. What is his average annual income in the five continuous years 1966 through 1970?
- (A) $2x/5 + 3y/5$
(B) $x/2 + y/2$
(C) $5(x + y)$
(D) $5x/2 + 5y/2$
(E) $3x/5 + 2y/5$
16. Hose A can fill a tank in 5 minutes, and Hose B can fill the same tank in 6 minutes. How many tanks would Hose B fill in the time Hose A fills 6 tanks?
- (A) 3
(B) 4
(C) 5
(D) 5.5
(E) 6

► **Very Hard**

17. How many coins of 0.5 dollars each and 0.7 dollars each together make exactly 4.6 dollars?
- (A) 1, 6
(B) 2, 7
(C) 3, 5
(D) 4, 3
(E) 5, 3
18. A piece of string 35 inches long is cut into three smaller pieces along the length of the string. The length of the longest piece is three times the length of the shortest piece. Which one of the following could equal the length of the medium-size piece?
- (A) 5
(B) 7
(C) 10
(D) 16
(E) 20

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19. Katrina has a wheat business. She purchases wheat from a local wholesaler at a particular cost per pound. The price of the wheat at her stores is \$3 per pound. Her faulty spring balance reads 0.9 pounds for a pound. Also, in the festival season, she gives a 10% discount on the wheat. She found that she made neither a profit nor a loss in the festival season. At what price did Katrina purchase the wheat from the wholesaler?
- (A) 2.43
 - (B) 2.5
 - (C) 2.7
 - (D) 3
 - (E) 3.3
20. A car traveled 65% of the way from Town A to Town B at an average speed of 65 mph. The car traveled at an average speed of v mph for the remaining part of the trip. The average speed for the entire trip was 50 mph. What is v in mph?
- (A) 65
 - (B) 50
 - (C) 45
 - (D) 40
 - (E) 35