1. A 10 Liter mixture of milk and water contains 30 percent water. Two liters of this mixture is taken away.  How many liters of water should now be added so that the amount of milk in the mixture is double that of water?
(a) 1.4
(b) 0.8
(c) 0.4
(d) 0.7
Answer: c
Explanation:
Two liters were taken away So we have only 8 liters of mixture.
Amount of milk in 8 liters of mixture = 8 × 70% = 5.6 liters
Amount of water in 8 lit of mix = 8 - 5.6 = 2.4 liters.
Half of milk i.e half of 5.6 = 2.8 liters.
We need (2.8 - 2.4) liters water more = 0.4 lit

2. A frog can climb up a well at 3 ft per min but due to slipperiness of the well, frog slips down 2 ft before it starts climbing the next minute. If the depth of the well is 57 ft, how much time will the frog take to reach the top?
Answer: 55 min
Explanation:
As per given, in 1 min,frog climbs up 3 ft and slips down by 2 ft.
So the frog climbs only 1 ft in 1 min
So after 54 mins,it would have climbed 54ft.
At the end of 55 mins it climbs up 3 ft to make it 57 ft and come out of the well.
Once it had reached the destination,it will not slip.
So the frog will take only 55 minutes to climb up the well.

3. A rectangle has twice the area of a square. The length of the rectangle is 14 cm greater than that side of the square whereas breadth is equal to side of the square. Find the perimeter of the square?
(a) 42 cm
(b) 14 cm
(c) 56 cm
(d) 28 cm
Answer: c
Explanation:
Let side of square be x.
Then for rectangle length = 14 + x   and breadth = x.
It is given
Area of rectangle = 2 × (area of square)
length × breadth = 2(x × x)
(x + 14) × x = 2 × x2
x2 + 14x = 2x2
x2 = 14x
x = 14.
Perimeter of square = 4 × x = 56

4. A man can row a distance of 5 km in 60 min with the help of the tide. The direction of the tide reverses with the same speed. Now he travels a further 20 km in 10 hours. How much time he would have saved if the direction of tide has not changed?
(a) 5 hrs
(b) 4 hrs
(c) 12 hrs
(d) 6 hrs
Answer: d
Explanation:

He covered 5 km in 1 hour , so he might cover 20 km in 4 hours.
But he took 10 hours.
He would have saved 10 – 4 = 6 hours.

5.If half of 5 were 3, that would one-third of 10 be
(a) 5
(b) 4
(c) 3
(d) 2
Answer: b
Explanation:
Half of 5 is 2.5.  But given as 3. So take 1/2 of 5x = 3 ⇒ x = 6/5
Now 1/3 (10x) = 1/3 × 10 × 6/5 = 4.

6. A butler is promised Rs. 100 and a cloak as his wages for a year. After 7 months he leaves this service, and receives the cloak and Rs.20 as his due. How much is the cloak worth?
(a) 76
(b) 84
(c) 92
(d) 68
Answer: c
Explanation:
Let be the price of cloak is = x
According to the Question he should get 7/12th of 100 and 7/12th of cloak.
7
12
(
100
)
+
7
12
(
x
)
=
20
+
x

⇒ x = 92.

7. A worm is at the bottom of a forty foot hole. It can crawl upwards at the rate of four feet in one day, but at night, it slips back three feet. At this rate, how long will it take the worm to crawl out of the hole?
(a) 29 days
(b) 37 days
(c) 35 days
(d) 39 days
Answer: c
Explanation:
For each day worm climb only 4 - 3 = 1feet.
After 36 days worm reach the 36 foot.
Exactly the 37th day worm reach 40 foot and won't slips back.

8. Sohan purchased a horse for Rs.2000 and sold it to Mohan at a loss of 10 percent. Mohan sold it to Sham at a loss of 10 percent while sham sold it to Gopi at a gain of 10 percent. The amount Gopi paid for it would be

Answer: 1782
Explanation:
Cost price = 2000
Selling price = 90% (2000) = 1800.
Mohan sold this to Sham at a loss of 10%. So selling price = 90% (1800) = 1620
Sham sold this at 10% profit. So selling price = 110% (1620) = 1782

9. On a map the distance between two mountains is 312 inches. The actual distance between the mountains is 136 km. Ram is camped at a location that on the map is 34 inch from the base of the mountain. How many km is he from the base of the mountain?
Answer: 14.82 km
Explanation:
Since 312 inch = 136 km
So 1 inch = 136/312 km
So 34 inch = (136 × 34)/ 312 = 14.82 km

10. Sixteen men complete a work in 24 days while 48 children can do it in 16 days. Twelve men started the work, after 14 days 12 children joined them. In how Many days will all of them together complete the remaining work?
Answer: 12 days
Explanation:
Let man capacity = 2 units/day. Then total work = 16 × 2 × 24 = 768
Let the children capacity is k units/ days. So total work = 48 × k × 16
Equating above two equations we get k = 1. So children capacity = 1 unit / day.
Twelve men did 14 days of job. So they completed 12 × 2 ×14 = 336.
Remaining work = 768 - 336 = 432.
Now 12 children joined them. So per day capacity of entire team = 12 × 2 + 12 × 1 = 36.
So they complete the remaining work in 432/36 = 12 days.

11. A father's age was 5 times his son's age 5 years ago and will be 3 times son's age after 2 years, the ratio of their present ages is equal to:
a) 3:7
b) 5:11
c) 10:3
d) 10:7
Answer: c
Explanation:
Let the Father's age = x, and Son's = y
x - 5 = 5(y – 5)
x + 2 = 3(y + 2)
Solving we get x/y = 10/3

12. At a reception, one-third of the guests departed at a certain time. Later two-fifths of the guests departed. Even later two-thirds of the remaining guests departed. If six people were left, how many were originally present at the party?
Answer: c
Explanation:
Let Original members be x
First One third guest departed i.e x/3
Remaining guests = x – (x/3) = 2x/3
Now from the remaining (2x/3) two-fifths departed = 2/5(2x/3) = 4x/15
i.e. Now remaining guests will be (2x/3 – 4x/15) = 2x/5
Now from remaining (2x/5) two-thirds departed = 2/3(2x/5) = 4x/15
Now remaining guests = (2x/5 – 4x/15) = 2x/15
Given 2x/15 = 6 ⇒ x = 45

13. Ratio between 2 numbers is 5 : 7 and their product is 560.what is the

difference between 2 numbers?
Answer: c
Explanation:
x/y = 5/7
x × y = 560 ⇒ x = 560/y
Substituting this value in first equation, we get
560
/
y
y
=
5
7
⇒
560
y
2
=
5
7
⇒ y = 28
x = 20
So difference between the numbers could be
x – y = –8
y – x = 8

14. A is 6 times as fast as B and takes 100 days less to complete a work than B. Find the total number of days taken by A and B to complete the work.
Answer: 120/7 days
Explanation:-
According to question A is 6 times as fast as B
So, Ratio of time taken by A and B will be 1 : 6
Let time taken by A is = x
And time taken by B is = 6x
According to the question A take 100 days less
i.e. 6x – x = 100
x = 20
So, A takes 20 days and B takes 120 days to complete the work.
A's 1 day work = 1/20
B's 1 day work = 1/120
(A + B)'s 1 day work = 1/20 + 1/120 = 7/120
Total time taken = 120/7 days.

15. 2 oranges, 3 bananas and 4 apples cost Rs.15. 3 oranges, 2 bananas and 1 apple costs Rs 10. What is the cost of 3 oranges, 3 bananas and 3 apples
Answer: 15
Explanation:
2 O + 3 B + 4 A = 15 - - - - (1)
3 O + 2 B + 1 A = 10 - - - - (2)
Where A,B and O are number of apple, bananas, and oranges respectively.
Adding 1 and 2,
5 O + 5 B + 5 A = 25 ⇒ 1 O + 1 A + 1 B = 5
now,
3O + 3A + 3B = 5 × 3 = 15

16. What is the next number of the following sequence
123, 444, 888, 1776, 8547, . . . . . .
Answer: 16005
Explanation:

1) 123 + 321 = 444
2) 444 + 444 = 888
3) 888 + 888 = 1776
4) 1776 + 6771 = 8547
5) 8547 + 7458 = 16005

17. Gavaskar average in first 50 innings was 50. After the 51st innings his average was 51. How many runs he made in the 51st innings
Answer: 101
Explanation:
Gavaskar average 50 in 50 innings so, total runs scored by him = 50 × 50 = 2500.
Now after 51st innings, his total runs = Average is, 51 × 51 = 2601.
So runs scored in 51st innings = 2601 – 2500 = 101 runs

18. There are 30 socks in a drawer. 60% of the socks are red and the rest are blue. What is the minimum number of socks that must be taken from the drawer without looking in order to be certain that atleast two blue socks have been chosen?
Answer: 20
Explanation:
Number of red socks = 30 × 60% = 18
If you draw out 18 socks there's a possibility that all of them are red
If you draw out 19 socks one of them has to be a blue one
And if u draw 20 socks then definitely 2 of them are blue socks
So the answer is 20.