1. 30 men take 20 days to complete a job working 9 hours a day. how many hour a day should 40 men work to complete the job?
a. 8 hrs
b. 7 1/2 hrs
c. 7 rs
d. 9 hrs
Answer: 6.75
Explanation:
Let the capacity of man in hour is 1 unit. Then total work = 30 × 20 × 9
40 men in 20 days working t hours a day can complete = 40 × 20 × t
⇒ 40 × 20 × t = 30 × 20 × 9
⇒ t = 6.75 hours.

2. If radius of a circle is diminished by 10% then its area is diminished by
a) 10%
b) 19%
c) 20%
d) 36%
Answer: b
Explanation:
Let old radius = 10 units.
New radius is diminshed by 10%. So new radius = 90% (10) = 9 units.
Old area = π × r2 = 100π
New area = π × 92 = 81π
Change = 19π/100π ×100 = 19%

Alternatively:
For any two dimensional diagram the percentage change is calculated by the formula:
(
a
+
b
+
a
b
100
)
%

Substitute a = -10, b = -10.

3. The ratio between speed of the two trains is 7:8. If the 2nd train runs 400 km in 4 hrs, what is the speed of the 1st train?
a) 85 kmph
b) 87.5 kmph
c) 90 kmph
d) 92.5 kmph
Answer: b
Explanation:
Speed of 2nd train = 400/4 = 100 kmph
Since the ratios are in 7 : 8
Speed of First train = 7/8 × 100 = 87.5 kmph

4. A car travelling 5/7th of its actual speed covers 42 km in 1 hr 40 min 48 sec. what is the actual speed of the car?
a) 30 kph
b) 35 kph
c) 25 kph
d) 40 kph

Answer: b
Explanation:
Let the Actual Speed = x
It is travelling with 5/7 of its actual speed = 5x/7.
Converting the time into seconds = 3600 + 2400 + 48 seconds.
Covers a distance with speed = 42/(3600 + 2400 + 48)
=
42
4048
 × 3600 = 25 kph
Given
5
x
7
  = 25 kph
So Actual Speed = 25 × (7/5) = 35 kph

5. The ratio of the present ages of Sunita and Vinita is 4:5. Six years hence the ratio of their ages will be 14:17. What will be the ratio of their ages 12 years hence?
1) 15:19
2) 13:15
3) 16:19
4) 17:19
5) None of these
Answer: 3
Explanation:
Present age sunita : vinita = 4 : 5
Let their age is 4x and 5x respectively..
After 6 yrs their age ratio will be 14 : 17
Therefore
4
x
+
6
5
x
+
6
=
14
17
⇒ x = 9
Therefore their present ages are 36,45 respectively.
After 12 yrs their ages will be 48, 57 respectively.
⇒ Ratio after 12 years will be 48: 57 = 16: 19 = 16 : 19

6. If the price of petrol increases by 25% and Kevin intends to spend only 15% more on petrol. By how much percent should he reduces the quantity of petrol that he buys?
Answer: 8%
Explanation:
Let Petrol Price 100 per Liter and Quantity he purchases equals to 100 Liters
Then total expenditure = 100 × 100 = 10000
Petrol Price is increased by 25%. So new price = 125 per litre
And he increases the expenditure by 15%. So expenditure limit = 11500
Now his quantity = 11500/125 = 92 liters

So the quantity is reduced by 8%

7. What is it answer?& it is a letter.
01100101
10000011
01110010
01111001
01110101.
Answer:
Explanation:
It is ASHOK as 01100101 10000011 01110010 01111001 01110101
65 83 72 79 75
A S H O K

8. If the circumference of a circle is 200 units, Then what will the length of the arc described by an angle of 20 degree ?
Answer: 11.11
Explanation:
The angle formed by a circle is 360 degrees.
Length of the arc =
θ
360
× Circumference of the circle.
So Length of the arc =
20
360
×
200
So, the length of the arc described by 20 degree angle is 11.11 units.

9. The average age of a class of 39 students is 15 years. If the age of the teacher be included, then the average increases by 3 months. Find the age of the teacher.
Answer: 25 y
Explanation:
Average age of 39 students = 15 yrs
Total age of 39 students = 39 × 15 = 585 yrs
Avg age of 39 students + teacher =15+ (3/12) =15.25 years
So the total age of (39 student + 1 teacher) or 40 persons = 40 × 15.25 = 610 years
So age of teacher = 610 – 585 = 25 years

10. A train leaves New York City at 7.15 Am and arrives in Buffalo at 2.47 that afternoon. What total length of time does the trip take?
Answer: 7 h 32 min.
Explanation:
2.47 PM = 14.47
Total time = 14.47 – 7.15 = 7 hrs 32 min

11. In a row of boys Anand is eleventh from the left and Deepak is fifteenth from the right. When Anand and Deepak interchange their positions, Anand will be fifteenth from the left, which of the following will be Deepak's position from the right?
Answer: 19
Explanation:
Anand is 11th from left and Deepak is 15th from right side
10 boys - Anand - x boys - Deepak - 14 boys.
After changing the position Anand's position is 15th from left. (Put Anand in Deepak position). So x is 3. Now Deepak position from the right is 14 + 1 + 3 + 1 = 19th.

12. A transport company's vans each carry a maximum load of 13 tonnes. 12 sealed boxes each weighing 9 tonnes have to be transported to a factory. The number of van loads needed to do this is
option
a) 11
b) 12
c) 8
d) 9
Answer: b
Explanation:
12 as all boxes are sealed.

13. Maria drove to the mountains last weekend. There was heavy traffic on the way there, and the trip took 9 hours. When Maria drove home, there was no traffic and the trip only took 4 hours. If her average rate was 40 miles per hour faster on the trip home, how far away does Maria live from the mountains?
Answer: 288 miles
Explanation:
Time taken for trip from home to mountains = 9 h
Time taken for trip from mountains to home = 4 h
Let distance from home to mountains = x miles
let avg speed from home to mountains = y miles/h
Given avg speed on the trip home is 40 m/h faster than speed from home to mountains = y + 40 m/h
⇒ (x/9) = y and (x/4) = y + 40
by solving this, we get y = 32 m/h and the distance x=32 × 9 = 288 miles.

14. If N = 23×34 , M = 22×3×5, then find the number of factors of N that are common with the factors of M.
a. 20
b. 18
c. 6
d. 8
Answer: c
Explanation:
N = 23×34
M = 22×3×5
By taking common powers we get 22×3
So common factors = (2 + 1)(1 + 1) = 6.
(formula for number of factors of a number)

15. Susan can type 10 pages in 5 minutes. Mary can type 5 pages in 10 minutes. Working together, how many pages can they type in 30 minutes?
A. 15
B. 20
C. 25
D. 65
E. 75
Answer: E
Explanation:
Susan can type 2 pages in 1 min
Mary can type 0.5 pages in 1 min
so, both of them work together they type 2.5 pages in 1 min
so,in 30 min they type (30 × 2.5) = 75 pages

16. a and b are two numbers selected randomly from 1,2,3.... 25 what is the probability of a and b are not equal.
(a) 1/25
(b) 24/25

(c) 13/25
(d) 2/25
Answer: b
Explanation:
Total outcomes = 25 × 25 = 625
Probability of getting a and b are equal= 25 [∴ (1,1),(2,2),(3,3).....(25,25)]
Probability of a and b or not equal =
1
–
25
625
=
600
625
=
24
25

17. Worker W produces n units in 5 hours. Workers V and W work independently but at the same time, produce n units in 2 hours. How long would it take V alone to produce n units?
Answer: 10/3 h
Explanation:
w's 1 hours production = n/5
(w + v)'s 1 hours production = n/2
v's 1 hour production = n/5 + V = n/2
v's 1 hour production = n/2 – n/5 = 3n/10= n/(10/3)
Ans = 10/3 hours

18. If A speaks the truth 80% of the times, B speaks the truth 60% of the times. What is the probability that they tell the truth at the same time
(a) 0.8
(b) 0.48
(c) 0.6
(d) 0.14
Answer: b
Explanation:
Probability that A speaks truth is 80/100 = 0.8
Probability that B speaks truth is 60/100 = 0.6
Since both A and B are independent of each other
So probability of A intersection B is P(A) × P(B) =0.8 × 0.6 = 0.48

19. Carrey rented a car for Rs.20 plus Rs.0.25 per kilometer driven. Samuel rented a car for Rs.24 plus Rs.0.16 per kilometer driven. If each drove d km. and each was charged exactly the same amount for the rental, then d equals ?
(a) 44.4
(b) 34.4
(c) 49.4
(d) 54.4
Answer: a
Explanation:
20 + 0.25 × d = 24 + 0.16d
Solving we get d = 44.4