Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

MIRROR IMAGE

Trick: If it is 12 hours, Subtract from 11:60 or 12:00

If it is 24 hours, Subtract from 23:60.

1) The time shown in the mirror is 7:20. What is the real-time shown on the clock?

a. 05:40
b. 04:50
c. 04:40
d. 04:00

Ans: c. 04:40
Explanation:

11:60
07:20
04:40

2) The time seen in the mirror is 6:40. What is the actual time on the clock?

a. 05:20
b. 05:00
c. 04:20
d. 04:00

Ans: a. 05:20
Explanation:

11:60
06:40
05:20

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

3) If the time shown in the mirror is 4:00, what is the actual time on the clock?

a. 07:60
b. 06:60
c. 07:07
d. 06:07

Ans: a. 07:60
Explanation:

11:60
04:00
07:60 or 8:00

4) The reflected time on the mirror is 8:45. What is the real-time shown on the clock?

a. 03:15
b. 03:20
c. 03:51
d. 03:25

Ans: a. 03:15
Explanation:

11:60
08:45
03:15

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

5) If the time visible in the mirror is 10:30, what is the actual time on the clock?

a. 01:00
b. 01:03
c. 01:33
d. 01:30

Ans: d. 01:30
Explanation:

11:60
10:30
01:30

6) A clock is viewed in a mirror, and the time is shown as 08:10. What is the true time displayed on the clock?

a. 03:50
b. 05:30
c. 03:05
d. 05:03

Ans: a. 03:50
Explanation:

11:60
08:10
03:50

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

7) If the time shown in the mirror is 10:35, what is the correct time on the clock?

a. 01:35
b. 01:25
c. 01:52
d. 01:53

Ans: b. 01:25
Explanation:

11:60
10:35
01:25

8) If the time shown on a clock is viewed in a mirror and it appears as 12:23, what is the actual time on the clock?

a. 11:20
b. 12:27
c. 11:37
d. 10:27

Ans: c. 11:37
Explanation:

11:60 (Exceeds 12 meAns write as 00)
00:23
11:37

Name of the Bundle	Intermediate Bundle V2	**Subject**	Aptitude
Topic	Clock	**Last updated on**	6 December 2024

9) A clock is reflected in a mirror, and the time displayed is 11:21. What is the true time on the clock?

a. 01:39
b. 00:39
c. 00:37
d. 01:21

Ans: b. 00:39
Explanation:

11:60

11:21

00:39 or 12:39

10) A clock is mirrored, showing the time as 9 hours 48 minutes. What is the correct time displayed on the clock?

a. 02:14
b. 02:00
c. 02:12
d. 02:20

Ans: c. 02:12
Explanation:

11:60

09:48

02:12

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

WATER IMAGE

Trick: If it is 12 hours clock Subtract from 18:30 /17:90

11) The time seen in the water is 7:20. What is the real-time on the clock?

a. 11:10
b. 11:11
c. 10:10
d. 10:11

Ans: a. 11:10
Explanation:

18:30
07:20
11:10

12) If a clock is reflected in water and shows the time as 6:30, what is the actual time on the clock?

a. 01:00
b. 02:00
c. 12:00
d. 11:00

Ans: c. 12:00
Explanation:

18:30
06:30
12:00

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

13) The time in the water is 4:00. What is the true time on the clock?

a. 02:03
b. 03:02
c. 02:30
d. 03:20

Ans: c. 02:30
Explanation:

18:30
04:00
14:30 Subtract 12:00 from 14:30.Then the water image is 02:30.

14) When you look at a clock reflected in water, the time appears as 8:45. What is the real-time shown by the clock?

a. 09:45
b. 08:55
c. 09:20
d. 08:20

Ans: a. 09:45
Explanation:

17: 90
~~18:30~~
08:45 (60+30)-45
09:45

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

15) If a clock is reflected in the water, the time shown is 10:30. What is the actual time on the clock?

a. 12:00
b. 11:00
c. 10:00
d. 08:00

Ans: d. 08:00
Explanation:

18:30
10:30
08:00

16) A clock's reflection in water shows the time as 03:10. What is the real-time on the clock?

a. 02:00
b. 02:20
c. 03:00
d. 03:20

Ans: d. 03:20
Explanation:

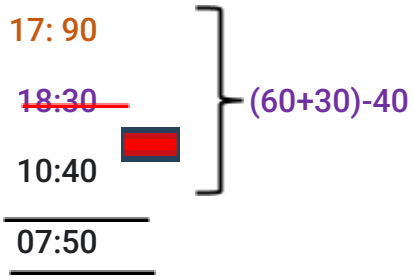
18:30
03:10
15:20 Subtract 12:00 from 15:20.Then the water image is 03:20.

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

17) The time displayed on a clock, when viewed through the reflection in water, is 10:40. What is the actual time on the clock?

a. 06:50
b. 06:05
c. 07:50
d. 07:05

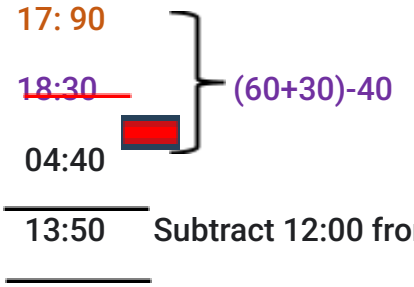
Ans: c. 07:50
Explanation:



18) A clock, when viewed in the water's reflection, shows 04:40. What is the true time on the clock?

a. 01:50
b. 04:50
c. 03:50
d. 02:50

Ans: a. 01:50
Explanation:



Subtract 12:00 from 13:50.Then the water image is 01:50.

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

19) The reflection of a clock in water shows 02:55. What is the real-time on the clock?

a. 02:35
b. 03:25
c. 02:25
d. 03:35

Ans: d. 03:35
Explanation:

17:90
~~18:30~~
02:55 } (60+30)-55

15:35 Subtract 12:00 from 15:35.Then the water image is 03:35.

20) When a clock is reflected in water, the time shown is 9 hours 48 minutes. What is the real-time on the clock?

a. 08:22
b. 09:22
c. 09:48
d. 08:42

Ans: d. 08:42
Explanation:

17: 90
~~18:30~~
09:48 } (60+30)-48

08:42

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

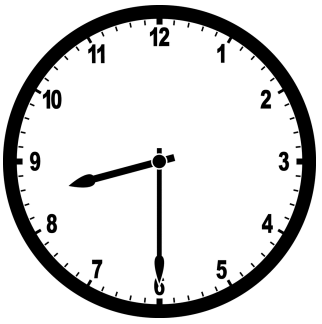
ANGLE MADE BY MINUTE HAND AND HOUR HAND

21) What will be the angle between the two hands of the clock at 8:30 pm?

a. 90^0
b. 75^0
c. 60^0
d. 85^0

Ans: b. 75^0
Explanation:

Formula: $\theta=30(H) \sim 11/2)M$



Method 1

$\theta=30H \sim 11/2(M)$

$=30(8) \sim 11/2(30)$

$=240 \sim 165$

$\theta=75^0$.

Method 2

Step 1: No.of.divisions between the minute hand and hour hand*30

Step 2: Minutes /2

No of divisions between Minute and Hour hand$=2*30^0=60$

Minutes/2 $=30/2=15$

Adding $60+15=75^o$

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

22) What will be the angle between the two hands of the clock at 4:30 pm?

a. 90^0
b. 45^0
c. 60^0
d. 85^0

Ans: b. 45^0
Explanation:

Formula: $\theta=30(H) \sim 11/2)M$

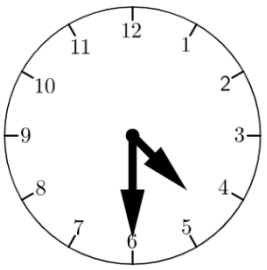
Method 1

$\theta=30H \sim 11/2(M)$

$=30(4) \sim 11/2(30)$

$=120 \sim 165$

$\theta= 45^0$.



Method 2

Step 1: No.of.divisions between the minute hand and hour hand*30

Step 2: Minutes /2

No of divisions between Minute and Hour hand=$2*30^0=60$

Minutes/2 =30/2 =15 (The hour hand is behind the minute hand)

Subtracting 60-15=45^o

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

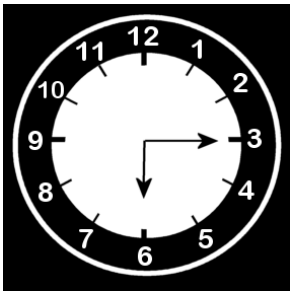
23) What will be the angle between the two hands of the clock at 6:15 pm?

a. 90^0
b. 97.5^0
c. 60^0
d. 85^0

Ans: b. 97.5^0
Explanation:

Formula: $\theta=30(H) \sim 11/2)M$

Method 1



$\theta=30H \sim 11/2(M)$

$=30(6) \sim 11/2(15)$

$=180 \sim 82.5$

$\theta= 97.5^0$.

Method 2

Step 1: No.of.divisions between the minute hand and hour hand*30

Step 2: Minutes /2

No of divisions between Minute and Hour hand$=3*30^0=90$

Minutes/2 =15/2 =7.5 (The hour hand is ahead of the minute hand)

Adding 90+7.5=97.5°.

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

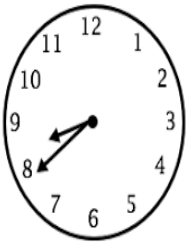
24) What will be the angle between the two hands of the clock at 8:40 pm?

a. 90^0
b. 20^0
c. 60^0
d. 85^0

Ans: b. 20^0
Explanation:

Formula: $\theta=30(H) \sim 11/2)M$

Method 1



$\theta=30H \sim 11/2(M)$

$=30(8) \sim 11/2(40)$

$=240 \sim 220$

$\theta= 20^0$.

Method 2

Step 1: No.of.divisions between the minute hand and hour hand*30

Step 2: Minutes /2

No divisions between Minute and Hour hand$=0*30^0=0$

Minutes/2 =40/2 =20 (The hour hand is ahead of the minute hand)

Adding 0+20=20^o

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

25) What will be the angle between the two hands of the clock at 5.00 pm?

a. 90^0
b. 150^0
c. 160^0
d. 85^0

Ans: b. 150^0
Explanation:

Formula: $\theta=30(H) \sim 11/2)M$

Method 1

$\theta=30H \sim 11/2(M)$

$=30(5) \sim 11/2(0)$

$=150 \sim 0$

$\theta= 150^0$.

Method 2

Step 1: No.of.divisions between the minute hand and hour hand*30

Step 2: Minutes /2

No of divisions between Minute and Hour hand$=5*30^0=150$

Minutes/2 =0/2 =0(Hour hand is ahead the minute hand)

Adding 150+0=150^o

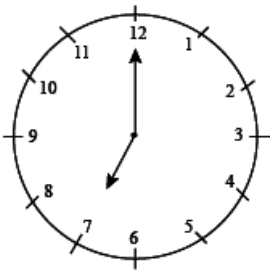
Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

26) What will be the reflex angle between the two hands of the clock at 7.00 pm?

a. 90^0
b. 210^0
c. 160^0
d. 85^0

Ans: b. 210^0
Explanation:

Formula: $\theta=30(H) \sim 11/2)M$



Method 1

$\theta=30H \sim 11/2(M)$

$=30(7) \sim 11/2(0)$

$=210 \sim 0$

$\theta = 210^0$.

Method 2

Step 1: No.of.divisions between the minute hand and hour hand*30

Step 2: Minutes /2

No of divisions between Minute and Hour hand$=7*30^0=210$

Minutes/2 =0/2 =0(Hour hand is ahead the minute hand)

Adding 210+0=210^o

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

27) What will be the reflex angle between the two hands of the clock at 10:10 pm?

a. 115^0
b. 120^0
c. 160^0
d. 185^0

Ans: a. 115^0
Explanation:

Formula: $\theta=30(H) \sim 11/2)M$

Method 1

$\theta=30H \sim 11/2(M)$

$=30(10) \sim 11/2(10)$

$=300 \sim 55$

$\theta= 245^0$.

If the value is Greater than 180, then Subtract from 360.

$\theta=360-245=115^0$

Method 2

Step 1: No.of.divisions between the minute hand and hour hand*30

Step 2: Minutes /2

No of divisions between Minute and Hour hand= $4*30^0=120$

Minutes/2 =10/2 =5 (The hour hand is behind the minute hand)

Subtracting 120-5= 115 °

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

HANDS -COINCIDE, OPPOSITE TO EACH OTHER, PERPENDICULAR.

28) At what time between 6 o'clock and 7 o'clock will the hands of a clock coincide?

a. 6:32 8/11 minutes
b. 6:34 8/11 minutes
c. 6:30 8/11 minutes
d. 6:32 5/7 minutes

Ans: a. 6:32 8/11 minutes
Explanation:

The hands of the clock coincide at 6:30 between 6 o'clock and 7 o'clock.

Formula: H: 12/11(M) — Smaller number

6: 12/11(30)
6: 360/11
6: 32 8/11

The trick to find the Answer without using a pen:

Check the mixed fraction from the given options

Example: a) 6:32 8/11 minutes

Add the values a) 6: 32 +8/11 minutes

Check whether the unit digit is zero or not.

If the unit digit is zero, that is the Answer. So option (a) is the Answer.

Here 32+8=40.

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

29) At what time between 9 o'clock and 10 o'clock will the hands of a clock be opposite to each other?

a. 9:15 minutes
b. 9:16 minutes
c. 9:16 4/11 minutes
d. 9:17 1/11 minutes

Ans: c. 9:16 4/11 minutes
Explanation:

The hands of the clock opposite each other means a straight line (180 degrees) at 9: 15 between 9 o'clock and 10 o'clock.

Formula: H: 12/11(M) — Smaller number

9:12/11(15)

9:180/11

9:16 4 /11

The trick to find the Answer without using a pen:

Check the mixed fraction from the given options

Example: c) 9:16 4/11 minutes

Add the values c) 9: 16 +4/11 minutes. Here 16+4=20.

Check whether the unit digit is zero or not.

If the unit digit is zero, that is the Answer. So option c is the Answer.

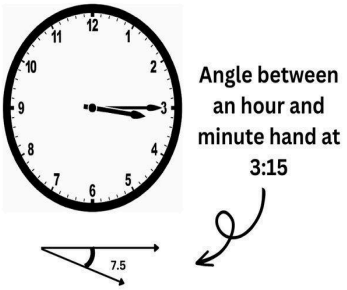
Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

30) At what time in a minute between 3 o'clock and 4 o'clock, will both needles coincide with each other?

a. 5 1/11 minutes
b. 12 4/11 minutes
c. 16 4/11 minutes
d. 17 1/11 minutes

Ans: c. 16 4/11 minutes
Explanation:

The hands of the clock at 3: 15 between 3 o'clock and 4 o'clock.



Formula: H: 12/11(M) → Smaller number

But there is a slight deviation in the position of the hour hand when the minute hand is exactly at 15 minutes.

3: 12/11(15)

3: 180/11

3: 16 4 /11

The trick to find the Answer without using a pen:

Check the mixed fraction from the given options

Example: c) 16 4/11 minutes

Add the values c) 16 +4/11 minutes. Here 16+4=20.

Check whether the unit digit is zero or not.

If the unit digit is zero, that is the Answer. So, option c is the Answer.

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

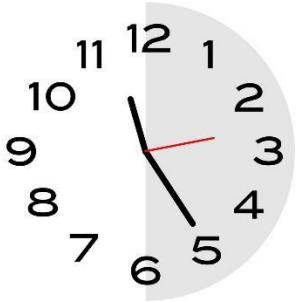
31) At what time between 11 o'clock and 12 o'clock will the hands of a clock be at an angle of 180º?

a. 11:27 3/11 minutes
b. 11:30 minutes
c. 11:31 3/11 minutes
d. 11:25 minutes

Ans: a. 11:27 3/11 minutes
Explanation:

The hands of the clock opposite each other meet in a straight line (180 degrees) at 11: 25 between 9 o'clock and 10 o'clock.

Formula: H: 12/11(M) — Smaller number



But there is a slight deviation in the position of the hour hand when the minute hand is exactly at 15 minutes

11: 12/11(25)

11: 300/11

11: 27 3 /11

The trick to find the Answer without using a pen:

Check the mixed fraction from the given options

Example: a) 11:27 3/11 minutes

Add the values a) 11: 27+3/11 minutes. Here 27+3=30.

Check whether the unit digit is zero or not.

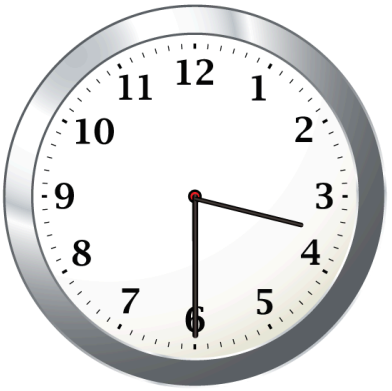
If the unit digit is zero, that is the Answer. So option (a) is the Answer.

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

PERPENDICULAR TO EACH OTHER

32) At what time between 3 o'clock and 4 o'clock will the hands of the clock be at 90°?

a. 3: 45 minutes
b. 3: 32 8/11 minutes
c. 3: 30 minutes
d. 3: 15 minutes



Ans: b. 3: 32 8/11 minutes

Explanation:

The hands of the clock will be 90 degrees at 3:30 between 3 o'clock and 4 o'clock.

Formula: H: 12/11(M) — Smaller number

But there is a slight deviation in the position of the hour hand when the minute hand is exactly at 30 minutes.

3: 12/11(30)
3: 30*12/11
3: 360 /11
3: 32 8/11

The trick to find the Answer without using a pen:

Check the mixed fraction from the given options

Example: b) 3:32 8/11 minutes

Add the values b) 3: 32+8/11 minutes. Here 32+8=40.

Check whether the unit digit is zero or not.

If the unit digit is zero, that is the Answer. So option b is the Answer.

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

CLOCK ERROR (OR) DEFECTIVE CLOCK

33) A defective clock gains 5 minutes every hour. If the clock is set correctly at noon, what will be the time shown on the clock at 6:00 PM?

a. 06:30 AM
b. 07:30 PM
c. 06:30 PM
d. 07:30 AM

Ans: c. 06:30 PM
Explanation:

- **Time Passed (Real Time)**: From 12:00 noon to 6:00 PM, the real time is 6 hours.

- **Extra Time Gained**:

The clock gains 5 minutes every hour. So, in 6 hours, the clock will gain:

Formula:

{[Slow (or) Fast]/(Slow+Fast)}x Total time Hr/days

5 minutes/hour×6 hours=30 minutes

6:00 PM+30 minutes=6:30 PM

Since the real-time is 6:00 PM, the defective clock will show 6:30 PM.

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

34) A clock that moves continuously fast. It lags 5 minutes on Sunday at 8 am, it is ahead 7 minutes on Tuesday at 8 am then find when the clock shows the right time.

a. Monday 4 AM
b. Monday 8 AM
c. Tuesday 2 AM
d. Tuesday 4 AM

Ans: a. Monday 4 AM
Explanation:

Formula:

{[Slow (or) Fast]/(Slow+Fast)}x Total time Hr/days

Sunday 8 AM 5 minutes lag

Monday

Tuesday 8 AM 7 minutes lead

} 48 HOURS

=5/(5+7)*x 48*

=5*4 =20 Hrs

Sunday 8 AM +20 Hrs

=Monday 4 AM

The right time of the clock is MONDAY 4 AM.

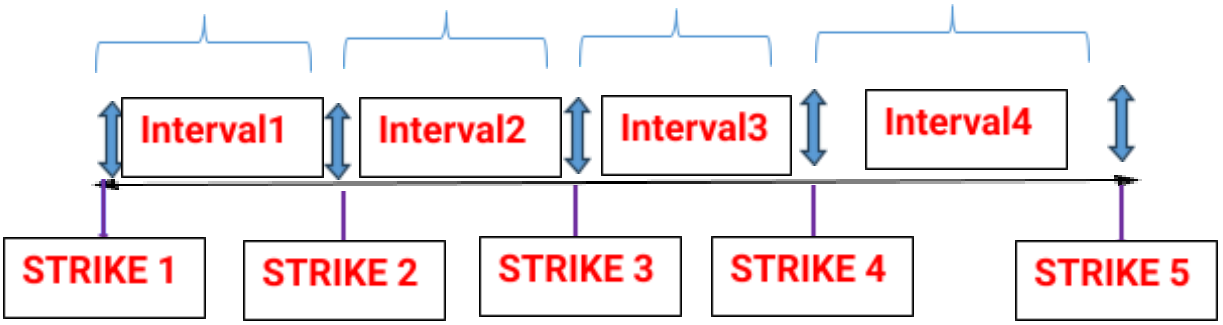
Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

STRIKING CLOCK

35) A clock takes 8 seconds to strike 5 times. Then how many seconds does it take to make 10 strikes?

a. 10 seconds
b. 18 seconds
c. 11 seconds
d. 16 seconds

Ans: b. 18 seconds
Explanation:



5 Strikes = 4 equal intervals.

4 equal intervals 8 seconds.

1 interval=2 seconds.

For 10 strikes = 9 equal intervals.

9 equal intervals=9*2=18 seconds

Name of the Bundle	Intermediate Bundle V2	Subject	Aptitude
Topic	Clock	Last updated on	6 December 2024

POINTS TO REMEMBER

ANGLE MADE BY MINUTE HAND AND HOUR HAND.

HANDS	1 hour	1 Minute
HOUR HAND	30°	$1/2^0$
MINUTE HAND	360°	6°

MINUTE HAND AND HOUR HAND MEET

NO. OF HOUR	NO. OF TIMES	MEET AT
1 HOUR	1	11/2 minutes
12 HOURS	11 Times	65 5/11 minutes

A number of times the hands of the clock make 180^0,360^0,90^0.

Degree	In a day (24 hours)	In 12 hours
0 degree / 360 degrees	22 times	11 times
180 degrees	22 times	11 times
90 degrees	44 times	22 times