High School Mathematics Test 2014

Year 7

Metric Units

Non Calculator Section

Skills and Knowledge Assessed:

- Connect decimal representations to the metric system (ACMMG135)
- Convert between common metric units of length, mass and capacity (ACMMG136)
- Solve problems involving the comparison of lengths and areas using appropriate units (A CMMG137)
- Connect volume and capacity and their units of measurement (ACMMG138)
- Solve problems involving duration, including using 12-and 24-hour time within a single time zone (ACMMG199)
- Interpret and use timetables (ACMMG139)

Name_____

Answer all questions in the spaces provided on this test paper by:
Writing the answer in the box provided.
or
Shading in the bubble for the correct answer from the four choices provided.
*Show any working out on the test paper. Calculators are **not** allowed.*

1. Which measurement is the same as 8 000 metres?

☐ 8 mm ☐ 8cm ☐ 8 km ☐ 80 km

2. Use a ruler to measure the width of this page to the nearest cm.

☐ cm

3. Which unit would be most appropriate to measure your mass (weight).

☐ milligrams ☐ grams ☐ kilograms ☐ tonnes

4. Which is a reasonable estimate for the amount of soft drink in this normal sized can?

☐ 37 ml ☐ 370 ml

☐ 1 370 ml ☐ 3 700 ml

5. How many minutes are in $3\frac{1}{2}$ hours.

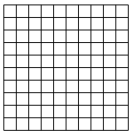
☐ minutes.

6. Write the time of 5:45 pm in 24 hour time.

☐ : ☐

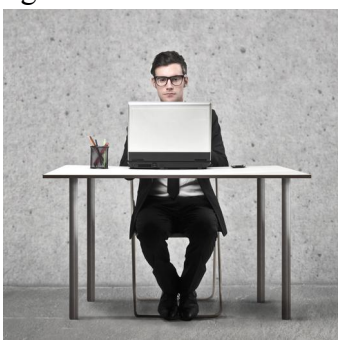
7. How many square mm are there in a square cm?

- ☐ 10
- ☐ 100
- ☐ 1 000
- ☐ 10 000



8. Which two units would be appropriate to measure the height of this desk?

- ☐ centimetres or millimetres
- ☐ kilometres or centimetres
- ☐ kilometres or metres
- ☐ kilometres or millimetres



9. In 2010 Anna measured her height as being 128 cm.
By 2014 she had grown to a height of 1.65 metres.
What was the increase in her height (in cm)?

☐ cm.

10. When travelling to school, James walks 800 metres, then travels 6.5 km on a tram and finally walks another 300 metres to get to school.
How far does he travel altogether when going to school?

☐ km.

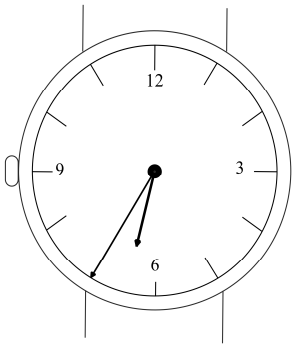
11. Katie pours herself a drink of water from a jug which holds 2.4 litres.
She glass she uses holds 300 ml.
How many times could she fill the glass from the jug?

☐ 4 times ☐ 6 times ☐ 8 times ☐ 10 times

12. Gavin woke one morning at the time shown on his watch.

He left for school at 8:25am.

How long was he awake before leaving for school?



- ☐ 1 hour and 20 minutes.
- ☐ 1 hour and 30 minutes.
- ☐ 1 hour and 40 minutes.
- ☐ 1 hour and 50 minutes.

Questions 13 – 15 refer to the tram timetable shown below.

Stop / Time	pm	pm	pm	pm	pm	pm	pm
Central Pier (Docklands)	7:03	7:56	8:35	9:17	10:18	11:18	11:58
Bourke St	7:05	7:58	8:37	9:19	10:20	11:20	12:00
Docklands Park	7:09	8:01	8:40	9:22	10:23	11:23	12:03
Spencer St	7:12	8:04	8:43	9:25	10:26	11:26	12:06
Melbourne Aquarium	7:13	8:05	8:44	9:26	10:27	11:27	12:07
Market St	7:15	8:07	8:46	9:28	10:29	11:29	12:09
Elizabeth St	7:16	8:08	8:47	9:29	10:30	11:30	12:10
Swanston St	7:17	8:09	8:48	9:30	10:31	11:31	12:11
Russell St	7:19	8:10	8:49	9:31	10:32	11:32	12:12
Spring St	7:21	8:12	8:51	9:33	10:34	11:34	12:14
Simpson St	7:24	8:15	8:54	9:36	10:37	11:37	12:17
Punt Rd	7:25	8:16	8:55	9:37	10:38	11:38	12:18
Yarra Bvd	7:32	8:23	9:02	9:44	10:45	11:44	12:24
Hawthorn Railway Station	7:35	8:26	9:05	9:47	10:48	11:47	12:27
Glenferrie Rd	7:39	8:30	9:09	9:51	10:52	11:51	12:31
Camberwell Tram Depot	7:43	8:34	9:13	9:55	10:56	11:55	12:35
Camberwell Junction	7:44	8:35	9:14	9:56	10:57	11:56	12:36
Toorak Rd	7:50	8:41	9:20	10:02	11:03	12:01	12:41
Warrigal Rd	7:53	8:44	9:23	10:05	11:06	12:04	12:44
Somers St	7:54	8:45	9:24	10:06	11:07	12:05	12:45
Middleborough Rd	8:00	8:51	9:30	10:12	11:13	12:11	12:51
Blackburn Rd	8:04	8:55	9:34	10:16	11:17	12:14	12:59
Stanley Rd	8:09	9:00	9:39	10:21	11:22	12:19	1:02
Hanover Rd (Vermont Sth)	8:10	9:01	9:40	10:22	11:23	12:20	1:04

13. One tram leaves the Russell St stop at 8:49 pm. How long does it take to get to the Warrigal Rd stop?

☐ minutes

14. Which of these trams from Docklands takes the least time to complete the full journey to Vermont South?

- ☐ The 7:03.
- ☐ The 7:56.
- ☐ The 9:17.
- ☐ The 11:18.

15. Laura catches the 8:35 tram from Docklands and gets off at Swanson St to join friends for a meal which takes an hour.

She then takes another tram and gets off at Somers St and walks 5 minutes to her home.

What time does she arrive home?

☐ pm/am

16. Helen's date of birth is 15/08/2001. She received a birthday card on the 30th July 2014.

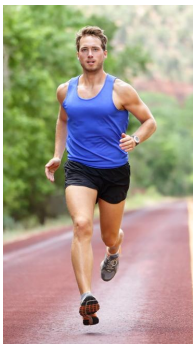
Which is true?

- ☐ The card arrived 15 days early for her 12th birthday.
- ☐ The card arrived 16 days early for her 12th birthday.
- ☐ The card arrived 15 days early for her 13th birthday.
- ☐ The card arrived 16 days early for her 13th birthday.

17. Alex runs 18 laps of an oval which has a circumference of 250 metres.

Lenny runs 4.8 kilometres on the open road.

Who runs the furthest, and by how many metres?



☐ runs the furthest by ☐ metres.

18. At 19:56 Hannah checks the program guide on her TV and sees a program she wants to watch starts in 1 hour and twenty minutes time and lasts for 56 minutes.

Which is true?

- ☐ The program starts at 9:16 pm and ends at 10:12 pm.
- ☐ The program starts at 9:16 pm and ends at 10:22 pm.
- ☐ The program starts at 9:26 pm and ends at 10:12 pm.
- ☐ The program starts at 9:26 pm and ends at 10:12 pm.

High School Mathematics Test 2014

Year 7

Metric Units

Calculator Allowed Short Answer Section

Name_____

Answer all questions in the spaces provided on this test paper by:
Writing the answer in the box provided.
or
Shading in the bubble for the correct answer from the four choices provided.
Show any working out on the test paper. Calculators are allowed.

1. Which of the following is the same mass as 2.4 kilograms?

☐ 24 g ☐ 240 g ☐ 2 400 g ☐ 24 000 g

2. Complete the statement below.

George buys a ruler which is 0.6 metres long.

Its length in centimetres is ☐ cm.

3. Which would be a reasonable estimate for the mass of a banana?

☐ 25 g ☐ 50 g

☐ 100 g ☐ 200g

4. Joanne goes on a run which takes 45 minutes. The run took

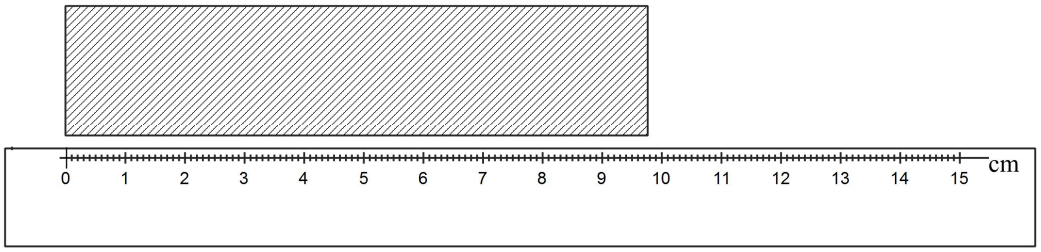
☐ A quarter of an hour. ☐ Half an hour.

☐ Three quarters of an hour. ☐ An hour and a half.

5. Mira makes enough cordial to fill a container which holds of 12 500 ml.
How many litres of juice is this?

☐ litres.

6. What is the approximate length of the shaded rectangle, according to the ruler shown?



☐ 98 mm ☐ 980 mm ☐ 9 800 mm ☐ 98 000 mm

7. A football match starts at 3:20pm and finishes at 5:05 pm. What is the duration of the match?

☐ hours and ☐ minutes.

8. Which would be a reasonable estimate for the distance from Sydney to Melbourne?

☐ 80 km ☐ 800 km ☐ 8 000 km ☐ 80 000 km

9. What is the mass (weight) of the fruit shown, to the nearest 50 grams?

☐ grams

10. The mass of a 4WD ute is 1.6 tonnes. Emily loads a cargo which weighs 500 kg in the back of the ute. What is the combined mass of the ute and cargo (to the nearest 10th of a tonne)?

☐ tonnes

Questions 11 – 13 refer to the train timetable below.

Perth Station	5:23 am	6:27 am	6:54 am	7:08 am
City West	5:25 am	6:29 am	6:56 am	7:10 am
West Leederville	5:27 am	6:31 am	6:58 am	7:12 am
Subiaco	5:29 am	6:33 am	7:00 am	7:14 am
Daglish	5:30 am	6:34 am	7:01 am	7:15 am
Shenton Park	5:32 am	6:36 am	7:03 am	7:17 am
Karrakatta	5:34 am	6:38 am	7:05 am	7:19 am
Loch Street	5:35 am	6:39 am	7:06 am	7:20 am
Claremont	5:37 am	6:41 am	7:08 am	7:22 am
Swanbourne	5:39 am	6:43 am	7:10 am	
Grant Street	5:40 am	6:44 am	7:11 am	
Cottesloe	5:42 am	6:46 am	7:13 am	
Mosman Park	5:44 am	6:48 am	7:15 am	
Victoria Street	5:45 am	6:49 am	7:16 am	
North Fremantle	5:47 am	6:51 am	7:18 am	
Fremantle	5:51 am	6:55 am	7:22 am	7:31 am

11. The 7:08 am train from Perth is an express train.

How much less time does it take to get to Freemantle compared to the other trains?

☐ 3 minutes ☐ 5 minutes ☐ 7 minutes ☐ 9 minutes

12. Jean catches a train from West Leederville. She needs to reach Mosman Park station by 7:10 am; in order to make a 7:15 am appointment nearby.

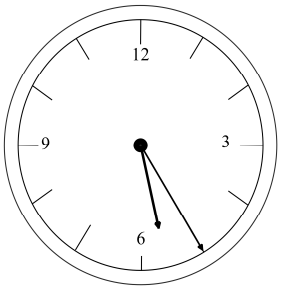
What is the latest time she could catch a train from West Leederville?

☐ am

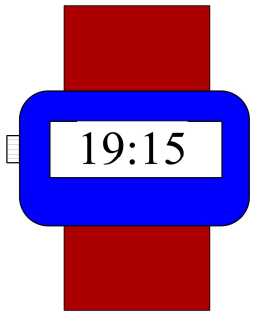
13. Rory checks the clock as he leaves work.

When he gets home he checks his watch.

If both show the correct time, long did it take him to get from work to home?



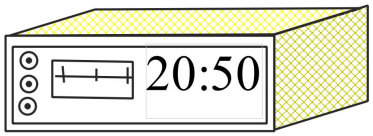
Clock at work.



Rory's watch when he gets home.

- ☐ 1 hour 40minutes
- ☐ 2 hours 10 minutes
- ☐ 1 hour 50 minutes
- ☐ 2 hours 50 minutes

14. Jasmine was setting her alarm at the time shown.

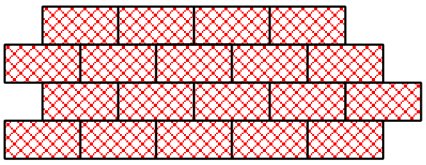


She sets the alarm for 6:20 the next morning.

If she goes to sleep an hour after setting the alarm, how many hours sleep does she get before the alarm sounds?

- ☐ 7 hours and 30 minutes.
- ☐ 8 hours and 10 minutes.
- ☐ 8 hours and 30 minutes.
- ☐ 9 hours and 10 minutes.

15. A brick wall is made of bricks whose front face has an area of 360 cm^2.



The area of the wall is 4.5 m^2.

How many bricks would be needed for the wall?

- ☐ 12.5
- ☐ 75
- ☐ 80
- ☐ 125

16. A water storage dam has a capacity of 120 megalitres.

On average 240 kilolitres is used each day.

If there is no water added to the dam, how long will the water stored in the dam last?

☐ days

17. Keira is a woodworker and she is making wooden toys for a market stall.

She bought 12 planks which are 2.4 metres long to make the toys.

Each toy requires a length of 45 cm to be cut from a plank, any shorter lengths are discarded.

Each completed toy weighs 900 grams.

What is the total mass of the completed toys?

☐ 43.2 kg ☐ 54.0 kg ☐ 57.6 kg ☐ 60.0 kg

18. Shaun worked five shifts last week.

The times for his shifts were :

8:20 (eight hours and twenty minutes)
8:55 (eight hours and fifty five minutes)
9:45 (nine hours and forty five minutes)
8:45 (eight hours and forty five minutes)
8:45 (eight hours and forty five minutes)

He is paid at overtime rates if he works more than 35 hours in a week.

How many hours and minutes of overtime did he work last week?

☐ hours and ☐ minutes.

High School
Mathematics Test 2014

Metric Units
ANSWERS

Non Calculator Section (1 mark each)

1. Which measurement is the same as 8 000 metres?

☐ 8 mm ☐ 8cm ■ 8 km ☐ 80 km

2. Use a ruler to measure the width of this page to the nearest cm.

Depends at what size page is printed.

[ ] cm

3. Which unit would be most appropriate to measure your mass (weight).

☐ milligrams ☐ grams ■ kilograms ☐ tonnes

4. Which is a reasonable estimate for the amount of soft drink in this normal sized can?

☐ 37 ml ■ 370 ml

☐ 1 370 ml ☐ 3 700 ml

5. How many minutes are in $3\frac{1}{2}$ hours.

[210] minutes.

6. Write the time of 5:45 pm in 24 hour time.

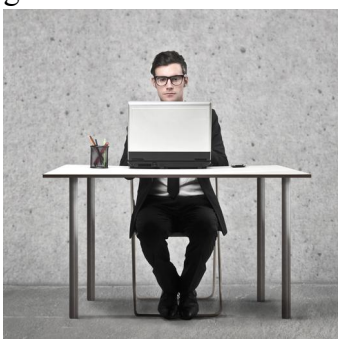
[17:45]

7. How many square mm are there in a square cm?

- ☐ 10
- ■ 100
- ☐ 1 000
- ☐ 10 000

8. Which two units would be appropriate to measure the height of this desk?

- ■ centimetres or millimetres
- ☐ kilometres or centimetres
- ☐ kilometres or metres
- ☐ kilometres or millimetres



9. In 2010 Anna measured her height as being 128 cm.
By 2014 she had grown to a height of 1.65 metres.
What was the increase in her height (in cm)?

165cm – 128 cm = 37 cm.

10. When travelling to school, James walks 800 metres, then travels 6.5 km on a tram and finally walks another 300 metres to get to school.
How far does he travel altogether when going to school?

0.8 + 6.5 + 0.3 = 7.6 km.

11. Katie pours herself a drink of water from a jug which holds 2.4 litres.
She glass she uses holds 300 ml.
How many times could she fill the glass from the jug? $\frac{2400ml}{300ml} = 8$

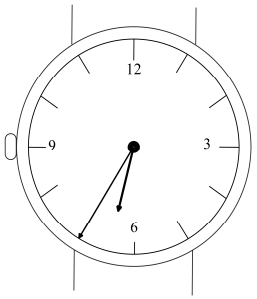
- ☐ 4 times
- ☐ 6 times
- ■ 8 times
- ☐ 10 times

12. Gavin woke one morning at the time shown on his watch.

He left for school at 8:25am.

For how long was he awake before leaving for school?

- ☐ 1 hour and 20 minutes.
- ☐ 1 hour and 30 minutes.
- ☐ 1 hour and 40 minutes.
- ■ 1 hour and 50 minutes.



From 6:35 to 8:25 = 2 hrs less 10 min

Questions 13 – 15 refer to the tram timetable shown below.

Stop / Time	pm	pm	pm	pm	pm	pm	pm
Central Pier (Docklands)	7:03	7:56	8:35	9:17	10:18	11:18	11:58
Bourke St	7:05	7:58	8:37	9:19	10:20	11:20	12:00
Docklands Park	7:09	8:01	8:40	9:22	10:23	11:23	12:03
Spencer St	7:12	8:04	8:43	9:25	10:26	11:26	12:06
Melbourne Aquarium	7:13	8:05	8:44	9:26	10:27	11:27	12:07
Market St	7:15	8:07	8:46	9:28	10:29	11:29	12:09
Elizabeth St	7:16	8:08	8:47	9:29	10:30	11:30	12:10
Swanston St	7:17	8:09	8:48	9:30	10:31	11:31	12:11
Russell St	7:19	8:10	8:49	9:31	10:32	11:32	12:12
Spring St	7:21	8:12	8:51	9:33	10:34	11:34	12:14
Simpson St	7:24	8:15	8:54	9:36	10:37	11:37	12:17
Punt Rd	7:25	8:16	8:55	9:37	10:38	11:38	12:18
Yarra Bvd	7:32	8:23	9:02	9:44	10:45	11:44	12:24
Hawthorn Railway Station	7:35	8:26	9:05	9:47	10:48	11:47	12:27
Glenferrie Rd	7:39	8:30	9:09	9:51	10:52	11:51	12:31
Camberwell Tram Depot	7:43	8:34	9:13	9:55	10:56	11:55	12:35
Camberwell Junction	7:44	8:35	9:14	9:56	10:57	11:56	12:36
Toorak Rd	7:50	8:41	9:20	10:02	11:03	12:01	12:41
Warrigal Rd	7:53	8:44	9:23	10:05	11:06	12:04	12:44
Somers St	7:54	8:45	9:24	10:06	11:07	12:05	12:45
Middleborough Rd	8:00	8:51	9:30	10:12	11:13	12:11	12:51
Blackburn Rd	8:04	8:55	9:34	10:16	11:17	12:14	12:59
Stanley Rd	8:09	9:00	9:39	10:21	11:22	12:19	1:02
Hanover Rd (Vermont Sth)	8:10	9:01	9:40	10:22	11:23	12:20	1:04

13. How many minutes does it take the tram which leaves the Russell St stop at 8:49 pm to get to the Warrigal Rd stop?

From 8:49 to 9:23
= 11 min + 23 min =

34 minutes

14. Which of these trams from Docklands takes the least time to complete the full journey to Vermont South?

- ☐ The 7:03. From 7:03 to 8:10 = 1 hrs and 7 min
- ☐ The 7:56. From 7:56 to 9:01 = 1 hr = + 4 min + 1 min = 1 hr and 5 min
- ☐ The 9:17. From 9:17 to 10:22 = 1 hr and 5 min
- ■ The 11:18. From 11:18 to 12:20 = 1 hr and 2 min

15. Laura catches the 8:35 tram from Docklands and gets off at Swanson St to join friends for a meal which takes an hour.

She then takes another tram and gets off at Somers St and walks 5 minutes to her home.

What time does she arrive home?

Arrive Swanson St at 8:48
Finish meal at at 9:48
Leave Swanson St at 10:31
Arrive Somers St at 11:07
Walk home arrive at 11:12

11:12 pm/~~am~~

16. Helen's date of birth is 15/08/2001. She received a birthday card on the 30th July 2014.

Which is true?

- ☐ The card arrived 15 days early for her 12th birthday.
- ☐ The card arrived 16 days early for her 12th birthday.
- ☐ The card arrived 15 days early for her 13th birthday.
- ■ The card arrived 16 days early for her 13th birthday.

1/8/2014 would be 14 days early, so 31/7 is 15 days early and 30/7 is 16 days early
From 2001 to 2014 is 13 years.

17. Alex runs 18 laps of an oval which has a circumference of 250 metres.

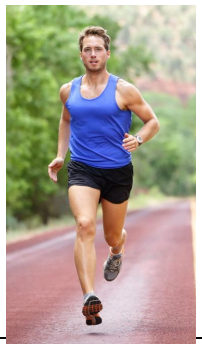
Lenny runs 4.8 kilometres on the open road.

Who runs the furthest, and by how many metres?

$18 \times 250 = 9 \times 500 = 4500\ m$

$4.8\text{km} = 4800\ m$

Lenny runs the furthest by 300 metres.



18. At 19:56 Hannah checks the program guide on her TV and sees a program she wants to watch starts in 1 hour and twenty minutes and lasts for 56 minutes.

Which is true?

- [x] The program starts at 9:16 pm and ends at 10:12 pm.
- [ ] The program starts at 9:16 pm and ends at 10:22 pm.
- [ ] The program starts at 9:26 pm and ends at 10:12 pm.
- [ ] The program starts at 9:26 pm and ends at 10:12 pm.

Program starts at 19:56+1:20
= 21:16
Program ends at 21:16+0:56
= 21:16+1:00-0:04
= 22:12

High School
Mathematics Test 2014

Calculator Allowed Short Answer Section (1 mark each)

1. Which of the following is the same mass as 2.4 kilograms?

☐ 24 g ☐ 240 g ■ 2 400 g ☐ 24 000 g

2. Complete the statement below.

George buys a ruler which is 0.6 metres long.

Its length in centimetres is [60] cm.

3. Which would be a reasonable estimate for the mass of a banana?

☐ 25 g ☐ 50 g

☐ 100 g ■ 200g

4. Joanne goes on a run which takes 45 minutes. The run took:

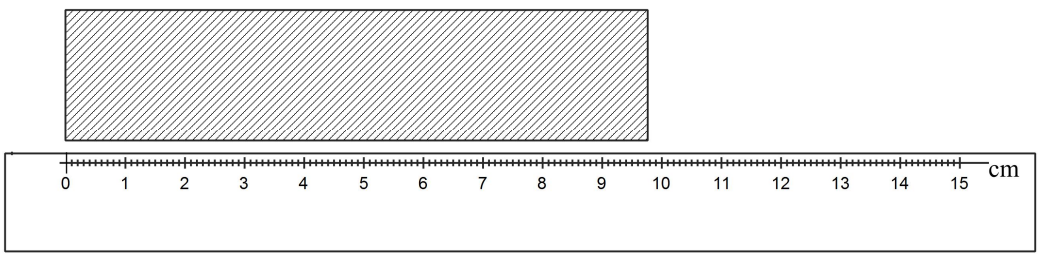
☐ A quarter of an hour. ☐ Half an hour.

■ Three quarters of an hour. ☐ An hour and a half.

5. Mira makes enough cordial to fill a container which holds of 12 500 ml.
How many litres of juice is this?

[12.5] litres.

6. What is the approximate length of the shaded rectangle, according to the ruler shown?



■ 98 mm ☐ 980 mm ☐ 9 800 mm ☐ 98 000 mm

7. A football match starts at 3:20pm and finishes at 5:05 pm. What is the duration of the match?

[1] hours and [45] minutes.

From 3:20 to 5:05 = 2 hrs less 15 min
= 1 hr 45 min

8. Which would be a reasonable estimate for the distance from Sydney to Melbourne?

☐ 80 km ■ 800 km ☐ 8 000 km ☐ 80 000 km

9. What is the mass (weight) of the fruit shown, to the nearest 50 grams?

[450] grams

10. The mass of a 4WD ute is 1.6 tonnes. Emily loads a cargo which weighs 500 kg in the back of the ute. What is the combined mass of the ute and cargo (to the nearest 10th of a tonne)?

$1.6t + 0.5\,t = 2.1\,t$

[2.1] tonnes

Questions 11 – 13 refer to the train timetable below.

Perth Station	5:23 am	6:27 am	6:54 am	7:08 am
City West	5:25 am	6:29 am	6:56 am	7:10 am
West Leederville	5:27 am	6:31 am	6:58 am	7:12 am
Subiaco	5:29 am	6:33 am	7:00 am	7:14 am
Daglish	5:30 am	6:34 am	7:01 am	7:15 am
Shenton Park	5:32 am	6:36 am	7:03 am	7:17 am
Karrakatta	5:34 am	6:38 am	7:05 am	7:19 am
Loch Street	5:35 am	6:39 am	7:06 am	7:20 am
Claremont	5:37 am	6:41 am	7:08 am	7:22 am
Swanbourne	5:39 am	6:43 am	7:10 am	
Grant Street	5:40 am	6:44 am	7:11 am	
Cottesloe	5:42 am	6:46 am	7:13 am	
Mosman Park	5:44 am	6:48 am	7:15 am	
Victoria Street	5:45 am	6:49 am	7:16 am	
North Fremantle	5:47 am	6:51 am	7:18 am	
Fremantle	5:51 am	6:55 am	7:22 am	7:31 am

Express train
From 7:08 to 7:31
= 23 min
Other trains eg
From 6:54 to 7:22
= 22 + 6 = 28 min

11. The 7:08 am train from Perth is an express train. **Working see above**

How much less time does it take to get to Freemantle compared to the other trains?

☐ 3 minutes ■ 5 minutes ☐ 7 minutes ☐ 9 minutes

12. Jean catches a train from West Leederville. She needs to reach Mosman Park station by 7:10 am; in order to make a 7:15 am appointment nearby.

What is the latest time she could catch a train from West Leederville?

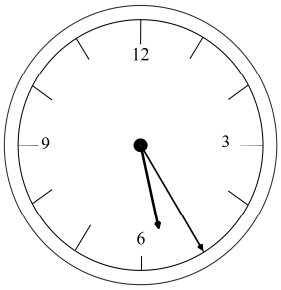
6:31 am

Train needs to arrive M P by 7:10, so best is 6:48
This leaves W L at 6:31

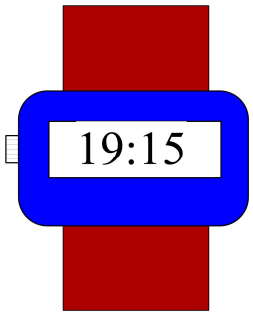
13. Rory checks the clock as he leaves work.

When he gets home he checks his watch.

If both show the correct time, long did it take him to get from work to home?



Clock at work.



Rory's watch when he gets home.

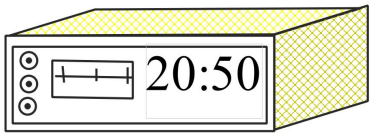
Leaves work at 5:25 = 17:25
Arrives home at 19:15
From 17:25 to 19:15
= 2 hrs- 10 min = 1 hr 50 min

- ☐ 1 hour 40minutes
- ■ 1 hour 50 minutes
- ☐ 2 hours 10 minutes
- ☐ 2 hours 50 minutes

14. Jasmine was setting her alarm at the time shown.

She sets the alarm for 6:20 the next morning.

If she goes to sleep an hour after setting the alarm, how many hours sleep does she get before the alarm sounds?



- ☐ 7 hours and 30 minutes.
- ☐ 8 hours and 10 minutes.
- ■ 8 hours and 30 minutes.
- ☐ 9 hours and 10 minutes.

Sets alarm at 20:50
Goes to sleep at 20:50+1:00
= 21:50
From 21:50 to 06:20
= 2 hrs 10 min + 6 hrs 20 min
= 8 hrs 30 min

15. A brick wall is made of bricks whose front face an area of 360 cm^2.

The area of the wall is 4.5 m^2.

How many bricks would be needed for the wall.

$1\ m^2 = 100\ cm \times 100\ cm = 10\ 000\ cm^2$
$4.5\ m^2 = 45\ 000\ cm^2$
No bricks = 45 000 ÷ 360
= 125 bricks

- ☐ 12.5
- ☐ 75
- ☐ 80
- ■ 125

16. A water storage dam has a capacity of 120 megalitres.

On average 240 kilolitres is used each day.

If there is no water added to the dam, how long will the water stored in the dam last?

120 Ml = 120 000 000 L
240 kl = 240 000

Number of days = $\frac{120000000}{240000}$
= 500 days

500 days

17. Keira is a woodworker and she is making wooden toys for a market stall.

She bought 12 planks which are 2.4 metres long to make the toys.

Each toy requires a length of 45 cm to be cut from a plank, any shorter lengths are discarded.

Each completed toy weighs 900 grams.

What is the total mass of the completed toys?

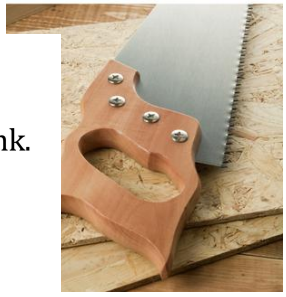
$\frac{2.4m}{0.45m} = 5.3$

So 5 from each plank.

$5 \times 12 = 60$ toys

Mass $= 60 \times 0.9$kg

$= 54$ kg



☐ 43.2 kg ■ 54.0 kg ☐ 57.6 kg ☐ 60.0 kg

18. Shaun worked five shifts last week.

The times for his shifts were :

8:20 (eight hours and twenty minutes)
8:55 (eight hours and fifty five minutes)
9:45 (nine hours and forty five minutes)
8:45 (eight hours and forty five minutes)
8:45 (eight hours and forty five minutes)

Total hrs = 8:20 + 8:55 + 9:45 + 8:45 + 8:45
= 41:00 + 3:30
= 44:30

Overtime = 44:30 - 35:00
= 9:30

He is paid at overtime rates if he works more than 35 hours in a week.

How many hours and minutes of overtime did he work last week?

9 hours and 30 minutes.