Carlingford High School

Mathematics

Year 7 Term 3 Examination
2019

Name: _____ Class: 7 ____

Time allowed: 50 minutes

- Show all necessary working.
- Answer all questions in the spaces provided.
- Marks may be deducted for careless or untidy work.
- Complete the exam in blue or black pen.
- **Calculators are not allowed.**

Topic	Decimals	Time	Algebra	Problem Solving	Total
Mark	/ 24	/ 20	/24	/ 2	/ 70

Decimals

1) Complete the following sentence: **[1]**

A _____ decimal has a finite number of decimal places.

2) For the number 10.047:

a) Write the number of decimal places **[1]**

b) Write the place value of 4 **[1]**

c) Round to two decimal places **[1]**

3) Arrange the following numbers in ascending order: 2.055 , 2.505 , 0.255 , 2.05 **[2]**

4) Convert:

a) $\frac{16}{100}$ into a decimal **[1]**

b) $\frac{4}{11}$ into a decimal, using dot notation **[2]**

c) 0.9 into a simplified fraction **[1]**

d) 27.025 into a simplified fraction **[2]**

5) Evaluate the following:

a) 3.12×1000 **[1]**

b) $14.83 \div 100$ **[1]**

c) 7.26×4.2 **[2]**

d) $11.92 \div 8$ **[2]**

6) Tom bought 15 metres of fabric at $6.29 per metre.

a) What was the total cost of the fabric? **[2]**

b) How much change would Tom receive if he paid with a $100 note? **[1]**

7) A farmer has four dairy cows. In one day, the first cow produced 10.95 litres of milk, the second cow produced 11.587 litres, the third cow produced 9.6 litres, and the fourth cow produced 7.013 litres.

a) How many litres of milk were produced by the four cows that day? **[1]**

b) The milk is poured into containers that each hold 0.15 litres. How many full containers will there be? **[2]**

Time

1) Which of the following words has a different meaning when spelled the same but pronounced differently? **[1]**

Day Hour Minute

2) Convert the following:

a) 3 min = _____ s **[1]**

b) 21 days = _____ week(s) **[1]**

c) 18 months = _____ year(s) **[1]**

d) 340 min = _____ h _____ min **[1]**

3) Round to the nearest minute:

a) 25.21 min **[1]**

b) 6 h 13 min 48 s **[1]**

4) Convert:

a) 7: 36 am into 24-hour time. **[1]**

b) 2152 into 12-hour time. **[1]**

5) What is the time 3 hours and 12 minutes after 10: 26 am? **[2]**

6) Jason was born on 18 July 1998. How old, in years and months, is he on 18 March 2015? Ignore leap days. **[2]**

7) Use the **Train Timetable** provided on page 9 to answer the following questions:

a) If Teresa wants to be in Wondabyne by 12:55pm, at what time is the latest train that she should catch from Wynyard? **[1]**

b) How long, in hours and minutes, does the 10:47 am train from Central take to arrive at Wyong? **[2]**

8) Use the **Australian time zone maps** provided on page 9 to answer the following questions:

a) When Australian Daylight Savings Time applies, what time is it in Alice Springs when it is 7 am in Canberra? **[1]**

b) In August I will fly from Hobart to Perth. The flight departs on Friday at 10:20 pm and the flight duration is 4.25 hours. At what time will I arrive in Perth (in Perth time)? **[3]**

Algebra

1) Circle the correctly spelled word: **[1]**

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2) Circle the pair of like terms: **[1]**

$3a^2b \qquad -5ab \qquad 2b^2a \qquad -4ba^2$

3) If n represents a number, write a simplified algebraic expression for: **[1 Mark Each]**

a) The sum of the number and 7

b) Triple the number

c) Half the difference between 11 and the number

4) Simplify:

a) $h + h + h + h$ **[1]**

b) $9k - k$ **[1]**

c) $4n \times 3m$ **[1]**

d) $7r \times 2r$ **[1]**

e) $8a \div 2$ **[1]**

f) $\frac{4x^2y}{6xy}$ **[2]**

g) $5pq - 2p - 7p + 6pq$ **[2]**

5) Expand and simplify:

a) $3(y + 5)$ **[1]**

b) $6(x - 4)$ **[1]**

c) $10z - (3 + 2z)$ **[2]**

6) If $x = 2, y = 3$ and $z = -1$, evaluate:

a) $y - 8$ **[1]**

b) $2y + x$ **[1]**

c) $y(x - z)$ **[2]**

d) $\frac{z^2 - y}{x}$ **[2]**

Problem Solving (1 Mark Each)

1) What is the sum of the first 2813 digits of the number $\frac{28}{13}$ when it is written as a decimal?

2) Write all the two-digit numbers that satisfy the following:

In a two-digit number, if you add three times the tens digit to the units digit, then add this to the product of the digits, you get back to the original number.

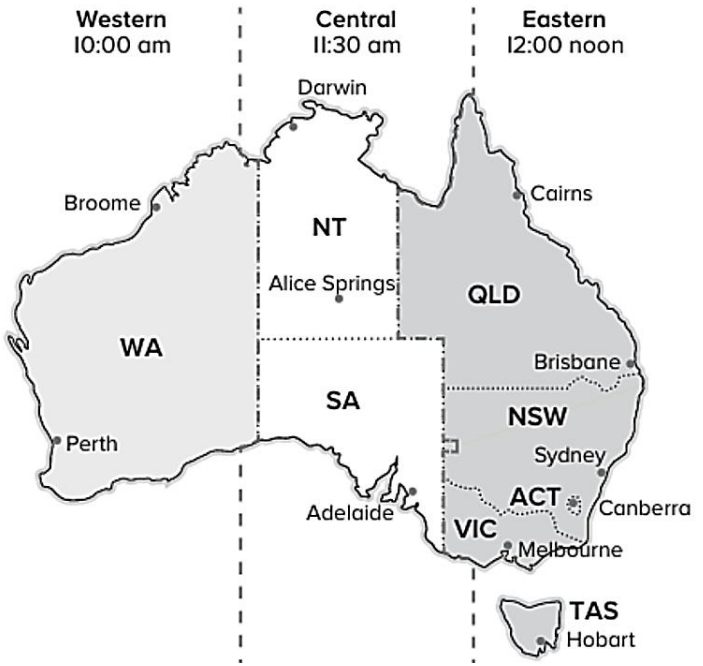
End of Exam

Extra Working Out Space

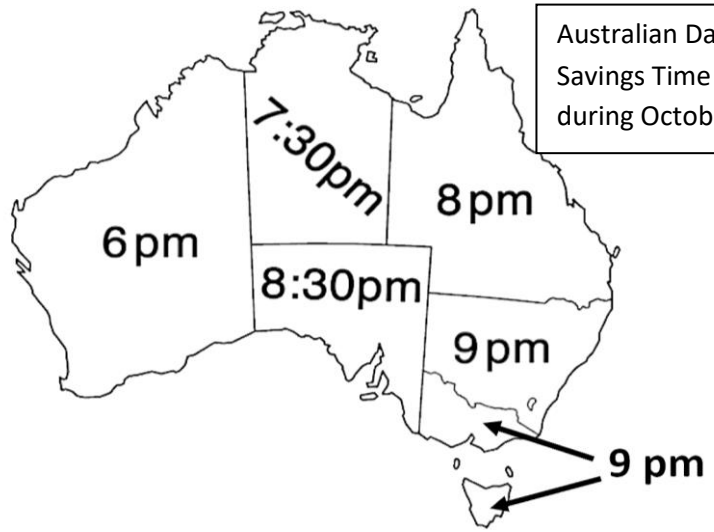
Train Timetable

	am	am	am	am	am	am	am
Central	10.17	10.30	10.47	11.00	11.17	11.30	11.47
Redfern	...	...	...	...	...	...	...
Strathfield	10.28	...	10.58	...	11.28	...	11.58
Eastwood	...	...	11.07	...	...	...	12.07
Epping	10.39	...	...	...	11.39	...	...
Town Hall	...	10.32	...	11.02	...	11.32	...
Wynyard	...	10.34	...	11.04	...	11.34	...
Milsons Point	...	10.38	...	11.08	...	11.38	...
North Sydney	...	10.39	...	11.09	...	11.39	...
Chatswood	...	10.51	...	11.21	...	11.51	...
Hornsby	10.49	11.15	11.19	11.44	11.49	12.15	12.19
Berowra	...	...	11.29	...	...	...	12.29
Cowan	...	...	11.33	...	...	...	12.33
Hawkesbury River	...	...	11.42	...	...	...	12.42
Wondabyne	...	...	11.49	...	...	...	12.49
Woy Woy	11.22	...	11.55	...	12.22	...	12.55
Koolewong	...	...	11.58	...	...	...	12.58
Tascott	...	...	12.01	...	...	...	1.01
Point Clare	...	...	12.04	...	...	...	1.04
Gosford	11.32	...	12.09	...	12.32	...	1.09
Narara	...	...	12.13	...	...	...	1.13
Niagara Park	...	...	12.15	...	...	...	1.15
Lisaeow	...	...	12.17	...	...	...	1.17
Ourimbah	...	...	12.20	...	...	...	1.20
Tuggerah	11.45	...	12.26	...	12.45	...	1.26
Wyong	11.48	...	12.29	...	12.48	...	1.29

Australian Standard Times



Australian Daylight Savings Time



Australian Daylight Savings Time applies during October - April