

Year 5 Term 4 Homework

Student Name: _____	Grade: _____
Date: _____	Score: _____

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7 Year 5 Term 4 Week 7 Homework

7.1 Topic 1 — Chance

1. A six-sided dice is tossed twice. Find the probability that the sum is 7.

2. Two marbles are drawn (the first is not replaced before the second is drawn) from a bag containing one green, two yellow, and three red marbles. Find the probability of drawing none of the red marbles.

3. What is the probability of choosing a vowel from the alphabet?

4. A jar contains 7 orange, 11 purple, and 12 red marbles. A marble is drawn at random. What is the probability of drawing an orange marble or a purple marble?

5. You roll a number cube numbered from 1 to 6. You then spin a spinner with 5 sections each with a different colour. The spinner has the colours black, yellow, orange, brown and purple. Find the probability of getting a number 6 and yellow colour.

6. You flip two coins and toss a dice. Find the probability of not getting heads and a number 4.

7. You roll a dice. Find the probability of getting a number which is divisible by 2.

7.2 Topic 2 — Time

1. Find the missing numbers:

(a) 2 leap years = _____ days.

(b) 3 decades = _____ years.

(c) 4 weeks = _____ days.

(d) 5 fortnights = _____ days.

(e) 6 weeks = _____ hours.

(f) 7 hours = _____ minutes.

(g) 8 minutes = _____ seconds.

(h) 9 centuries = _____ years.

(i) 10 years = _____ weeks.

2. How many minutes are there from 9.30 am to 12.15 pm?

3. How many hours and minutes are there from 3.20 am to 8.15 pm the same day.

4. A school excursion to Toronga Zoo began at 8:45 a.m. It ended at 3:13 p.m. How long did it last?

5. A data-entry clerk is paid \$12.35 an hour. Each day Jessica works for $6\frac{1}{2}$ hours. How much will she earn if she works for 4 weeks? (5 working days a week)

6. If John works 35 hours a week, for how many hours a week is he not at work?

7.3 Topic 3 — Tree Diagrams

1. How many different three-letter code words can you make using the letters A, B and C if repetition is not permitted?

2. How many different three-letter code words can you make using the letters A, B and C if repetition is permitted?

3. How many possible outcomes if you roll a dice twice to find a sum?

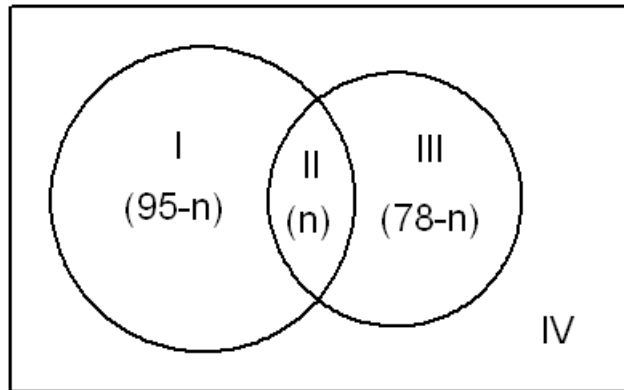
4. How many possible outcomes if you roll two dice at the same time to find a sum of the two dice?

5. How many possible outcomes if you toss a coin three times?

6. How many possible outcomes if you toss three coins at the same time?

7.4 Topic 4 — Venn Diagrams

Example 7.4.1 There 250 students enrolled at a High School. Of these students, 95 study French and 78 study Spanish. If 156 study either French or Spanish, how many students study both French and Spanish? How many students study neither French nor Spanish?



Solution: Let's label the region I, II, III and IV. The number of students study French be represented by I, the number of students study Spanish be represented by III. If we introduce the variable n to represent the number of students study both languages in region II. The number of students study neither French and Spanish will be in region IV.

Now we can have two equations:

$$I + II + III = 156 \quad (1)$$

$$IV = 250 - 156 \quad (2)$$

From equation (1) we have

$$(95 - n) + n + (78 - n) = 156$$

$$173 - n = 156$$

$$n = 17$$

From equation (2) we have

$$IV = 250 - 156$$

$$= 94$$

Therefore there are 17 students study both French and Spanish and 94 students study neither French nor Spanish.

Exercise 7.4.1 There are 32 students in Mrs Curl’s class.

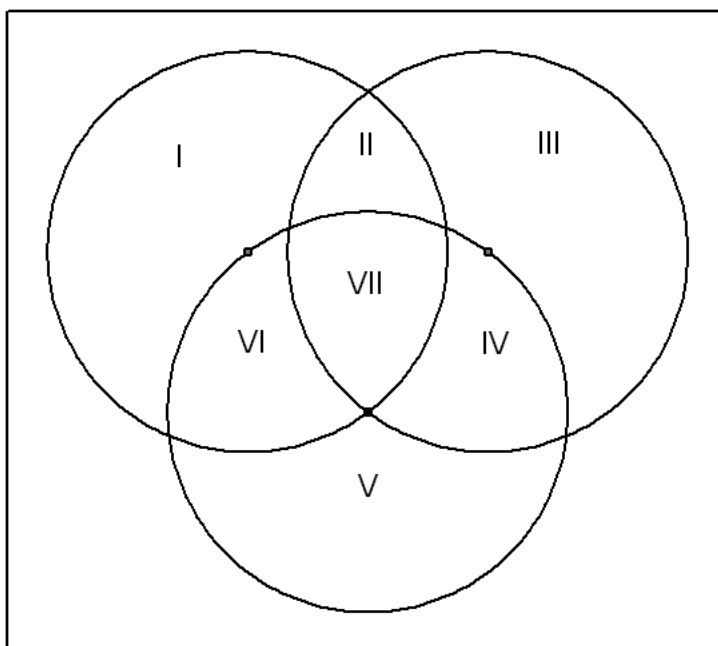
1. All the students study either French or Spanish. If 22 study French and 15 study Spanish, how many students study both languages?

2. All the students study math. The number of students who passed the first math test this year was 25; The number who passed the second math test was 28. If 23 students passed both tests, how many students failed both tests?

3. Of these students in the class, 9 do not study neither physics nor chemistry, but 14 students study chemistry. How many students study physics but not chemistry?

4. Of the students in the class, half of them are girls. There are 18 students who play a musical instrument and half of them are boys. How many girls in the class do not play a musical instrument?

Exercise 7.4.2 Thirty people took a trip to Europe to visit France , England, Spain. Of this group, 16 visited France, 16 visited England, 11 visited Spain, 5 visited France and Spain, 5 visited only Spain, 8 visited only England, and 3 visited all three countries. How many visited only France?



7.5 Test Paper 7**7.5.1 Part A**

1. Express 0.9 kg as a ratio of 90 g. _____
2. Express 121.25 kg in grams. _____
3. Express 0.035 as a percentage. _____
4. Express 95 cm as a fraction of 6 m and 5 cm. _____
5. Express 15.96 as an improper fraction. _____
6. Find the number if 18% of it is 72. _____
7. Find the average of 24, 35, 47 and 58. _____
8. Find the value of 41.52 divided by 12. _____
9. Linda is 12 years old and Keith is $\frac{3}{4}$ of her age. Find their total age. _____
10. Find the missing number: _____ : $\frac{7}{4} = 3 : \frac{21}{4}$.
11. $7620 \div 30 =$ _____ $\div 6$. Find the missing number.
12. Find the volume of a rectangular box, 20 cm long by 15 cm wide and 14 cm high. _____
13. Express 5500 cm^3 in litres. _____
14. Find the lowest common multiple of 6, 7, and 8. _____
15. Find HCF (378, 234 and 144). _____
16. What is the product of 5.19 times 0.84? (Round off to nearest tenth) _____
17. One kilogram of steak costs \$14.50. What would 1500g cost? _____
18. Starting from 225, how many times must 7 be subtracted to get answer of 1? _____
19. If you roll a triangular based pyramid it can come to rest in one of _____ faces.
20. Write 3 litres and 60 millilitres in litres. _____

7.5.2 Part B

1. Add 2104 to the product of 123 and 78.

2. Find the difference between $1771 \div 7$ and 213×4 .

3. A number when divided by 15 has a quotient of 230 and a remainder of 12. Find this number.

4. If \$37696 is shared equally among 16 people, find the amount of money received by 2 people.

5. Bonnie spent $\frac{2}{3}$ of her money on books and $\frac{1}{9}$ of the remaining amount on pens. If she had \$54 at first, how much had she left?

6. 58% of a bag of marbles are red while the rest are blue. If there are 8 fewer blue marbles, how many red and blue marbles are there altogether?

7. A bracelet costs twice as much as a watch. If the bracelet cost \$128, what is the average cost of 2 bracelets and 3 watches?

8. The length of a rectangle is three times its breadth. Find the area of the rectangle if its perimeter is 72 cm.

7.5.3 Part C

1. A natural number N has a remainder of 3 when divided by 7 and also has a remainder of 4 when divided by 5. What does the smallest value of N could have?

2. Ken has a 12:00 noon appointment that was 30 km from his home. He drove from his home at an average speed of 50 km/h and arrived 10 minutes late. At what time did Ken leave home for the appointment?

3. The following number sequence is formed by starting with 5 and then add 3 to each term to get the next term: 5, 8, 11, 14, 17, . . .

The first term of the sequence is 5, the second term is 8, and so forth. What is the 200th term?

4. The cost of a digital camera and an 2G memory card is \$320. If the camera cost \$130 more than the memory card, what is the cost of the camera?

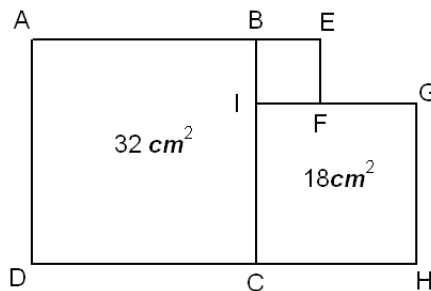
5. David has to complete a race of 5 km. If he runs 800 m in the first 15 minutes and 600 m in the next 15 minutes, what fraction of the whole route does he need to complete?

7.5.4 Part D

- Peter’s average mark on a set of 10 maths tests was 90. If his lowest mark was dropped, his average on the other nine tests would be 92. What was Peter’s lowest mark in these tests?

- What is the sum of the first fifty-five even numbers?

- The area of the square ABCD is 32 cm^2 and the area of square IGHC is 18 cm^2 . Find the area of the square BEFI.



- If $1^2 + 2^2 + 3^2 + \dots + 15^2 = 1695$, find the value of $2^2 + 4^2 + 6^2 + \dots + 30^2$.
