環蓓數學盃

小學四年級模擬試題（繁體中文版）

甲部 - 計算題：

1. $\frac{w}{7}$ - 8 = 4，w = ？
2. 在 456.789 這個數中，「7」表示的數值是什麼？
3. 把 $2\frac{4}{9}$ 化為假分數。
4. 以下哪個分數的數值是 3 ？
   a. $\frac{16}{3}$
   b. $\frac{30}{10}$
   c. $\frac{30}{3}$
   d. $\frac{3}{30}$
5. 15B - 35 = 55，B = ？

乙部 - 一般問題解決題目：

1. 老師有一些餅乾，分給若干個學生。如果每人分 5 塊，會剩下 3 塊；如果每人分 6 塊，會剩下 1 塊。老師最少有多少塊餅乾？
2. 姐姐和弟弟一起買了一套故事書。弟弟付了 $9\frac{2}{5}$ 元，姐姐比弟弟多付了 $2\frac{1}{5}$ 元。這套故事書總共多少錢？
3. 小華昨天讀書用了 0.85 小時，今天比昨天多用了 0.2 小時，他這兩天共讀書多少小時？

丙部 -『全球暖化』主題的應用題：

1. 爸爸每天開車上下班，來回共 20 公里，每公里消耗汽油 0.08 公升。為了減少碳排放，他決定改騎腳踏車上班，每週騎 3 天。如果每公升汽油 32 元，爸爸一個月（4週）可以節省多少元汽油費？
2. 為了響應節能減碳，學校決定在 6 月份舉辦「綠色生活挑戰賽」。如果每天節省一度電，相當於減少排放 0.6 公斤的二氧化碳。如果全校 150 位同學都參加，在 6 月 30 天內，全校總共可以減少排放多少公斤的二氧化碳？
3. 為了減少塑膠垃圾，環保團體發起自備購物袋的活動。如果每少用一個塑膠袋，可以減少 $\frac{1}{8}$ 公斤的碳排放。小區居民在七月份（31天）共少用了 400 個塑膠袋。請問七月份小區居民共減少了多少公斤的碳排放？

環蓓數學盃

小學四年級模擬試題(简体中文版)

甲部 - 计算题:

1. $\frac{w}{7}$ - 8 = 4, w = ?
2. 在 456.789 这个数中, “7” 表示的数值是什么?
3. 把 $2\frac{4}{9}$化为假分数。
4. 以下哪一个分数的数值是 3?
   a. $\frac{16}{3}$
   b. $\frac{30}{10}$
   c. $\frac{30}{3}$
   d. $\frac{3}{30}$
5. 15B - 35 = 55, B = ?

乙部 - 一般问题解决题目:

1. 老师有一些饼干, 分给若干个学生。如果每人分 5 块, 会剩下 3 块;如果每人分 6 块, 会剩下 1 块。老师最少有多少块饼干?
2. 姐姐和弟弟一起买了一套故事书。弟弟付了 $9\frac{2}{5}$ 元, 姐姐比弟弟多付了 $2\frac{1}{5}$ 元。这套故事书总共多少钱?
3. 小华昨天读书用了 0.85 小时, 今天比昨天多用了 0.2 小时。他这两天一共读了多少小时?

丙部 - “全球暖化”主题的应用题:

1. 爸爸每天开车上下班, 来回共 20 公里, 每公里消耗汽油 0.08 公升。为了减少碳排放, 他决定改骑自行车上班, 每周骑 3 天。如果每升汽油 32 元, 爸爸一个月(4 周)可以节省多少元汽油费?
2. 为了响应节能减碳, 学校决定在 6 月份举办“绿色生活挑战赛”。如果每天节省一度电, 相当于减少排放 0.6 公斤的二氧化碳。如果全校 150 位同学都参加, 在 6 月 30 天内, 全校总共可以减少排放多少公斤的二氧化碳?
3. 为了减少塑料垃圾, 环保团体发起自备购物袋的活动。如果每少用一个塑料袋, 可以减少 $\frac{1}{8}$ 公斤的碳排放。小区居民在七月份(31天)共少用了 400 个塑料袋。请问七月份小区居民共减少了多少公斤的碳排放?

環蓓數學盃

小學四年級模擬試題

答案與題解

甲部:

1. 84【題解:

步驟一:將等式兩邊同時加上 8,以消除左邊的 - 8	$\frac{w}{7}$ - 8 + 8 = 4 + 8 $\frac{w}{7}$ = 12
步驟二:將等式兩邊同時乘以 7,以解出 w 的值	($\frac{w}{7}$) x 7 = 12 x 7 w = 84】

2. 0.7或 $\frac{7}{10}$【題解:找出小數點後第一位的數值表示。「7」在小數點後第一位,代表十分位。】
3. $\frac{22}{9}$【題解:

步驟一:將整數部分乘以分母	2 x 9 = 18
步驟二:將結果加上分子	18 + 4 = 22
步驟三:將結果作為分子,分母不變	$\frac{22}{9}$】

4. B
5. 6【題解:

步驟一:將等式兩邊同時加上 35,以消除左邊的 -35	15B - 35 + 35 = 55 + 35 15B = 90
步驟二:將等式兩邊同時除以 15,以解出 B 的值	$\frac{15B}{15}$ = $\frac{90}{15}$ B = 6】

乙部:

1. 13【題解:

步驟一:假設有 Y 個學生。如果每人分 5 塊,剩下 3 塊,那麼餅乾總數可表示為:5Y + 3,如果每人分 6 塊,剩下 1 塊,餅乾總數可表示為:6Y + 1	由於餅乾總數不變,所以 5Y + 3 = 6Y + 1 6Y - 5Y = 3 - 1 Y = 2
步驟二:將 Y = 2 代入任一方程式求餅乾總數	例如 5Y + 3 = 5 x 2 + 3 = 10 + 3 = 13 所以,老師最少有 13 塊餅乾】

2. 21【題解:姐姐付的錢:$9\frac{2}{5}$ + $2\frac{1}{5}$ = $11\frac{3}{5}$ 元,故事書總價:$9\frac{2}{5}$ + $11\frac{3}{5}$ = $20\frac{5}{5}$ = 21 元】
3. 1.9【題解:今天讀書時間:0.85 小時 + 0.2 小時 = 1.05 小時,兩天共讀書時間:0.85 小時 + 1.05 小時 = 1.9 小時】

丙部

1. 614.4【題解:每天開車消耗汽油:20 公里 × 0.08 公升/公里 = 1.6 公升,每天開車花費汽油費:1.6 公升 × 32 元/公升 = 51.2 元,每週節省汽油費:51.2 元/天 × 3 天 = 153.6 元,一個月節省汽油費:153.6 元/週 × 4 週 = 614.4 元】
2. 2700【題解:每人每天減少排放量:1 度 x 0.6 公斤/度 = 0.6 公斤,全校每天減少排放量:150人 x 0.6公斤/人 = 90 公斤,全校 6 月總共減少排放量:90 公斤/天 x 30天 =2700 公斤】
3. 50【題解:共減少碳排放:400 個 x $\frac{1}{8}$公斤/個 = 50 公斤】

Green Bay Mathematics Cup

Grade 4 of Primary School - Mock Exam Questions（**English version**）

Section A - Calculation questions

1. $\frac{w}{7}$ - 8 = 4, w = ?
2. What is the value of the digit "7" in the number 456.789?
3. Convert $2\frac{4}{9}$ into an improper fraction.
4. Which of the following fractions is equal to 3?
   a. $\frac{16}{3}$
   b. $\frac{30}{10}$
   c. $\frac{30}{3}$
   d. $\frac{3}{30}$
5. 15B - 35 = 55, B = ?

Section B - General problem-solving questions

1. The teacher has some cookies. If they are divided among several students, each student gets 5 pieces and 3 pieces are left over. If divided each student by 6 pieces, 1 piece is left over. What is the minimum number of cookies the teacher has?
2. My sister and brother bought a set of storybooks together. Brother paid $9\frac{2}{5}$ dollars, and sister paid $2\frac{1}{5}$ dollars more than him. What is the total cost of the storybooks?
3. Hua spent 0.85 hours reading yesterday. Today, he read 0.2 hours more than yesterday. How many hours did he spend reading in total over these two days?

Section C - "Global Warming" themed problem-solving questions

1. Father drives to and from work every day, covering a total of 20 kilometers. He consumes 0.08 liters of gasoline per kilometer. To reduce carbon emissions, he decides to ride his bicycle to work three days a week. If the price of gasoline is 32 dollars per liter, how much money can he save on gasoline in one month (4 weeks)?

2. To promote energy saving and carbon reduction, the school plans to hold a "Green Living Challenge" in June. If students save one kilowatt-hour of electricity each day, it will reduce carbon dioxide emissions by 0.6 kg. If all 150 students participate, how much total CO_2 reduction can the whole school achieve in 30 days?

3. To reduce plastic waste, an environmental group launched a campaign encouraging people to bring their own shopping bags. If each avoided plastic bag reduces $\frac{1}{8}$ kilogram of carbon emissions, how much total reduction in carbon emissions is achieved if the community residents use 400 fewer plastic bags in July (31 days)?

Green Bay Mathematics Cup

Grade 4 of Primary School - Mock Exam Questions

Answers and Solutions

Section A:

1. 84 [Solution:

Step 1: Add 8 to both sides of the equation to eliminate the -8 on the left side.	$\frac{w}{7}$ - 8 + 8 = 4 + 8 $\frac{w}{7}$ = 12
Step 2: Multiply both sides of the equation by 7 to solve for the value of w.	($\frac{w}{7}$) x 7 = 12 x 7 w = 84]

2. 0.7 or $\frac{7}{10}$ [Solution: Find the value of the first digit after the decimal point. "7" is in the first decimal place, representing the tenth position.]
3. $\frac{22}{9}$ [Solution:

Step 1: Multiply the whole number part by the denominator.	2 x 9 = 18
Step 2: Add the numerator to the result.	18 + 4 = 22
Step 3: Use this result as the numerator, with the denominator remaining unchanged.	$\frac{22}{9}$]

4. B
5. 6 [Solution:

Step 1: Add 35 to both sides of the equation to eliminate the -35 on the left side.	15B - 35 + 35 = 55 + 35 15B = 90
Step 2: Divide both sides of the equation by 15 to solve for the value of B.	$\frac{15B}{15}$ = $\frac{90}{15}$ B = 6]

Section B:

1. 13 [Solution:

Step 1: Assume there are Y students. If each student gets 5 pieces and 3 pieces are leftover, the total number of cookies can be expressed as: 5Y + 3. If each student gets 6 pieces and 1 piece is leftover, the total number of cookies can be expressed as: 6Y + 1.	Since the total number of cookies remains the same, so 5Y + 3 = 6Y + 1 6Y - 5Y = 3 - 1 Y = 2
Step 2: Substitute Y = 2 into either equation to find the total number of cookies.	For example, using 5Y + 3: 5 × 2 + 3 = 10 + 3 = 13]

Green Bay Mathematics Cup

Grade 4 of Primary School - Mock Exam Questions

Answers and Solutions

2. 21 [Solution: Sister paid: 925 + 215 = 1135 dollars, total price of the storybook: 925 + 1135 = 2055 dollars, which equals 21 dollars on the price scale.]

3. 1.9 [Solution: Reading time today: 0.85 hours + 0.2 hours = 1.05 hours. Total reading time over two days: 0.85 hours + 1.05 hours = 1.9 hours.]

Section C:

1. 614.4 [Solution: Daily gasoline consumption: 20 km × 0.08 liters/km = 1.6 liters. Daily gasoline cost: 1.6 liters × 32 dollar /liter = 51.2 dollars. Weekly savings: 51.2 dollar/day × 3 days = 153.6 dollars. Monthly savings: 153.6 dollar/week × 4 weeks = 614.4 dollar]

2. 2700 [Solution: Daily emission reduction per person: 1 kWh × 0.6 kg/kWh = 0.6 kg. Total daily reduction for the school: 150 people × 0.6 kg/person = 90 kg. Total reduction in emission over June: 90 kg/day × 30 days = 2700 kg.]

3. 50 [Solution: Total reduction in carbon emissions: 400 bags × 1/8 kg/bag = 50 kg]