Mental Math

Grade 11 Essential Mathematics (30S)

D–1

Unit D: Managing Money　　　　　　**Specific Learning Outcome: 11.E4.M.1**

General Questions	Answers
1. Jonghun has $50 to spend on groceries. He needs milk ($5.00), vegetables ($15.00), fruit ($15.00), and some sort of protein. Chicken costs $12.50, pork costs $15.50, and steak costs $20. Which type(s) of meat could he afford?	Chicken
2. Rewrite the fraction in lowest terms: $\dfrac{750}{500}$	$\dfrac{3}{2}$
3. On the Canadian flag, in addition to two points at the bottom, the maple leaf has three main segments. Each segment has three points on it. How many points are there in total?	11 points
4. When comparing team statistics, you can look at a team's record (how many games it has won, lost, or tied) as well as the goals for (the number of goals the team has scored) and the goals against (the number of goals other teams have scored against it). If a team has not won a game, is it possible for it to have more goals for than against?	Impossible. You can only get more goals for than against when you win.
5. Solve: $5g - 10 = -30$	$g = -4$
Unit Questions	
6. Karanbir's spending includes rent at $500 per month, groceries at $300 per month, personal care at $80 per month, entertainment at $120 per month, and university at $6000 per year. Calculate his monthly spending.	$1500
7. Karanbir spends $80 per month on personal care. What is his annual spending on personal care?	$960
8. Karanbir works two jobs. He makes $800 per month at a fast-food restaurant and $900 per month tutoring. How much does he make each month?	$1700
Other Questions	
9.	
10.	

Mental Math

Grade 11 Essential Mathematics (30S)

Unit D: Managing Money **Specific Learning Outcome: 11.E4.M.1**

General Questions	Answers
1. Evaluate the following: $10 + 3 \times 6 - \dfrac{12}{2}$	22
2. Evaluate: 12×25	300
3. Write two equivalent fractions for $\dfrac{45}{90}$.	$\dfrac{1}{2}, \dfrac{3}{6}, \dfrac{4}{8}, \dfrac{5}{10}, \dfrac{15}{30}, \cdots$
4. High school students are collecting mittens for a shelter. If each student donates two pairs of mittens and there are 140 students at the school, how many pairs of mittens will the school donate?	280 pairs
5. A turkey must be roasted 15 minutes for every pound. If a turkey weighs 20 pounds, how long (in hours) would you have to roast it?	5 hours

Unit Questions

Answer questions 6 to 8 using the Monthly Budget Summary shown below.

5) **SUMMARY**
1. AVERAGE MONTHLY INCOME............................... 1) $ _5,568.33_
2. SAVINGS... 2) $ _556.83_
3. TOTAL MONTHLY EXPENSES............................... 3) $ _4,212.00_
4. TOTAL MONTHLY CONTRIBUTIONS .... 4) $ _294.66_
   TOTAL AMOUNTS 2 + 3 + 4 .... $ _5,063.49_
5. AMOUNT AVAILABLE FOR OTHER
   SAVINGS OR EXPENDITURES (DEFICIT) 5) $ _504.84_

	Answers
6. Do Nahum and Anne-Marie have extra money for savings or are they in a deficit?	They have extra.
7. Nahum's car breaks down and he has to get a new car costing him an extra $400 per month, including changes to his car insurance. How much will they now have left over for savings each month?	$104.84
8. Now that Nahum has a new car, he wants to buy a deck to put in it. He finds one for $226 (after tax). How many months will it take to save up for this item?	3 months

Other Questions

9.

10.

Mental Math

Grade 11 Essential Mathematics (30S)

D–3

Unit D: Managing Money　　　　　　　**Specific Learning Outcome: 11.E4.M.1**

General Questions	Answers
1. Convert the fraction to a decimal and a percent: $\dfrac{21}{84}$	0.25, 25%
2. To bisect an angle means to cut it in half. What is the name of the angle when you bisect a straight angle?	right angle
3. Jonah has $81 and he buys four DVDs for $15 each (tax included). How much money will he have left?	$21
4. Aldin's sales were $1500 over the past two weeks. If he makes 20% commission, how much will he be paid (gross)?	$300
5. Complete the pattern: 100, 75, 50, _____ , _____ , _____	25, 0, −25

Unit Questions

Answer questions 6 to 8 using the Monthly Budget Summary shown below.

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5) SUMMARY
   1. AVERAGE MONTHLY INCOME.............................      1) $ 5,568.33
   2. SAVINGS.................................................  2) $     556.83
   3. TOTAL MONTHLY EXPENSES............................      3) $  4,212.00
   4. TOTAL MONTHLY CONTRIBUTIONS ...................      4) $     294.66
      TOTAL AMOUNTS 2 + 3 + 4 ...................................     $ 5,063.49
   5. AMOUNT AVAILABLE FOR OTHER
      SAVINGS OR EXPENDITURES (DEFICIT)              5) $    504.84
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6. Nahum and Anne-Marie want to take a vacation on December 6th and it is now February 1st. How much can they save by December 6th?	$5048.40
7. The travel advisor tells Nahum that they must pay for the $4000 trip in advance. When can they pay the full trip amount?	October 1
8. Estimate the amount of spending money they will have on their trip.	≈ $1050

Other Questions	
9.	
10.	

Mental Math

Grade 11 Essential Mathematics (30S)

D–4

Unit D: Managing Money　　　　**Specific Learning Outcome: 11.E4.M.2**

General Questions	Answers
1. In the year 2020, Tom will be 16 years old. Tara will be half Tom's age, and Tammy will be half Tara's age. What year was Tammy born?	2016
2. Evaluate the following: $10 + \dfrac{4}{(2 \times 3)} \times 12 - 50$	-32
3. From your house, you walk 10 paces straight before turning left, and then you walk 100 paces. You then turn left and walk 25 paces. Finally, you turn left again and walk 100 paces. How far are you from where you started?	15 paces
4. This past week (Monday to Friday) was crazy. Monday, you did not go to school because it was a snow day; Thursday was Remembrance Day, so you didn't go to school; and then on Friday the teachers had an in-service day. How many days did you go to school this week?	2 days
5. What fraction of days of the week begin with the letter T?	$\dfrac{2}{7}$

Unit Questions	
6. Karanbir uses his debit card regularly for groceries, gas, eating out, etc. His chequing account costs $5.00 and gives him 30 free debits. Any transactions over 30 costs $0.30 per transaction. If Karanbir is charged $6.80, how many times did he use his debit card?	36 times
7. If Karanbir was charged $8.00, how many times did he use his debit card?	40 times
8. An unlimited debit-use account costs $11.00. How many times can Karanbir use his card before his account costs him the same amount as the unlimited account?	50 debits a month

Other Questions	
9.	
10.	

Mental Math

Grade 11 Essential Mathematics (30S)

D–5

Unit D: Managing Money **Specific Learning Outcome: 11.E4.M.2**

General Questions	Answers
1. Begin with 8 and multiply by 1, then divide your answer by 2.	4
2. Multiply your answer from question #1 by 3.	12
3. Divide your answer from question #2 by 4.	3
4. What is the pattern in the instructions?	Alternate multiplying and dividing; the number increases by 1 each time.
5. Write the next step in the pattern and find the next number.	Multiply by 5. 15
Unit Questions	
6. Angelica has $375 in her account. She writes two cheques, one for $50 and the other for $200. What is her new account balance?	$125
7. John Doe deposited $40 cash, $6.35 in coins, and a cheque for $12.78. He wants to get $10 cash back. What is the amount of the deposit?	$49.13
8. If John had $230 in his account, how much does he have after he makes a deposit of $78.10?	$308.10
Other Questions	
9.	
10.	