Question: Find the remainder of 3908 divided by 7.,**Options:** (1) 2 (2) 3 (3) 5 (4) 6,**Solution:** The best answer is (2) 3. Explanation: When you divide 3908 by 7, you get a quotient of 558 and a remainder of 3. This is because 7*558 = 3906, and 3908 - 3906 = 2, which is the remainder. The other options are incorrect because they do not give the correct remainder when 3908 is divided by 7. For example, if the remainder was 2 (option 1), then 7*558 + 2 = 3908, which is not true. Similarly, options 3 and 4 do not give the correct remainder.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Round off 87.948 to 2 decimal places.,**Options:** (1) 87.90 (2) 87.94 (3) 87.95 (4) 88.00,**Solution:** The best answer is (3) 87.95. Explanation: When rounding to two decimal places, we look at the third decimal place. If this number is 5 or above, we round up. If it's 4 or below, we round down. In this case, the third decimal place is 8, which is above 5, so we round up. This means 87.948 becomes 87.95. The other options are incorrect because they do not follow this rule. For example, 87.90 and 87.94 are both rounding down too much, and 88.00 is rounding up too much.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: What is 26.05 kg in kilograms and grams?,**Options:** (1) 2kg 605g (2) 26kg 5g (3) 26 kg 50g (4) 26 kg 500g,**Solution:** The best answer is (3) 26 kg 50g. Explanation: The number before the decimal point represents the kilograms, so we have 26 kg. The number after the decimal point represents the grams. Since 1 kg equals 1000 grams, 0.05 kg equals 50 grams. Therefore, 26.05 kg is equivalent to 26 kg 50g. The other options are incorrect because they do not correctly convert the decimal kilograms to grams. For example, option (2) 26kg 5g incorrectly interprets 0.05 kg as 5 grams, and option (4) 26 kg 500g overestimates the conversion by interpreting 0.05 kg as 500 grams. Option (1) 2kg 605g is incorrect because it misinterprets the kilograms and grams entirely.,**Difficulty Level:** AO1,**Topic:** Measurement

Question: Find the product of 35 and 208.,**Options:** (1) 173 (2) 243 (3) 7280 (4) 7820,**Solution:** The best answer is (3) 7280. Explanation: The product of 35 and 208 is found by multiplying the two numbers together. 35 * 208 = 7280 Therefore, the correct answer is 7280. The other options are incorrect because they are not the product of 35 and 208. For example, 35 * 208 is not equal to 173, 243, or 7820.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Express 1.8% as a decimal.,**Options:** (1) 0.0018 (2) 0.018 (3) 0.18 (4) 18,**Solution:** The best answer is (2) 0.018. Explanation: To convert a percentage to a decimal, you divide the percentage by 100. In this case, 1.8 divided by 100 equals 0.018. The other options are incorrect because they do not represent the correct conversion from percentage to decimal. For example, (1) 0.0018 would be the decimal equivalent of 0.18%, not 1.8%. (3) 0.18 would be the decimal equivalent of 18%, not 1.8%. And (4) 18 would be the decimal equivalent of 1800%, not 1.8%.,**Difficulty Level:** AO1,**Topic:** Ratio & Percentage

Question: Round off 3.836 to the nearest hundredth.,**Options:** (1) 3.8 (2) 3.83 (3) 3.84 (4) 3.90,**Solution:** The best answer is (3) 3.84. Explanation: When rounding to the nearest hundredth, we look at the digit in the thousandths place. If this digit is 5 or more, we round up. If it's less than 5, we round down. In this case, the digit in the thousandths place is 6, which is more than 5. Therefore, we round up the hundredths place (3) to 4. So, 3.836 rounded to the nearest hundredth is 3.84. The other options are incorrect because they do not accurately represent 3.836 rounded to the nearest hundredth. 3.8 (option 1) and 3.83 (option 2) are rounded down too much, and 3.90 (option 4) is rounded up too much.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Ali and John have 144 stamps altogether. Ali has 4 more stamps than John. How many stamps does Ali have?,**Options:** (1) 68 (2) 70 (3) 74 (4) 76,**Solution:** The best answer is (2) 70. Explanation: If Ali and John have 144 stamps altogether and Ali has 4 more stamps than John, we can set up the equation as follows: Ali's stamps (A) + John's stamps (J) = 144 Since Ali has 4 more stamps than John, we can express Ali's stamps as (J+4). So, the equation becomes: J + (J+4) = 144 This simplifies to 2J + 4 = 144 Subtract 4 from both sides to get 2J = 140 Finally, divide both sides by 2 to solve for J (John's stamps), J = 70 Since Ali has 4 more stamps than John, Ali has 70 + 4 = 74 stamps. So, the correct answer is (3) 74. The other options are incorrect because they do not satisfy the conditions given in the problem.,**Difficulty Level:** AO2,**Topic:** Algebra

Question: What is 80% of 160?,**Options:** (1) 32 (2) 72 (3) 128 (4) 12 800,**Solution:** The best answer is (3) 128. Explanation: To find 80% of 160, you multiply 160 by 0.80 (which is the decimal equivalent of 80%). 160 * 0.80 = 128 So, 80% of 160 is 128. The other options are incorrect because they do not result from this calculation. For example, 160 * 0.80 does not equal 32, 72, or 12 800.,**Difficulty Level:** AO1,**Topic:** Ratio & Percentage

Question: What is five million, nine thousand and sixty in numerals?,**Options:** (1) 5 009 006 (2) 5 009 060 (3) 5090 006 (4) 5090 060,**Solution:** The correct answer is (2) 5 009 060. Explanation: The number "five million, nine thousand and sixty" is written in numerals as 5 009 060. This is because there are 5 millions (5 000 000), 9 thousands (9 000), and 60 units, which add up to 5 009 060. The other options are incorrect because they do not correctly represent the given number. For example, option (1) has an extra 6 units, and options (3) and (4) do not have the correct number of millions.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Find the product of 87 and 4065.,**Options:** (1) 3978 (2) 4152 (3) 353 655 (4) 363 555,**Solution:** The best answer is (3) 353 655. Explanation: The product of two numbers is obtained by multiplying them. So, we multiply 87 by 4065. 87 * 4065 = 353 655 Therefore, the product of 87 and 4065 is 353 655. The other options (1) 3978, (2) 4152, and (4) 363 555 are incorrect because they are not the product of 87 and 4065.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: The height and base of a triangle are 48 cm and 51 cm respectively. Find its area.,**Options:** (1) 998 om? (2) 1024 cm? (3) 1224 cm? (4) 2448 cm?,**Solution:** The best answer is (3) 1224 cm. Explanation: The area of a triangle is given by the formula 1/2 * base * height. In this case, the base is 51 cm and the height is 48 cm. So, the area is 1/2 * 51 cm * 48 cm = 1224 cm^2. The other options are incorrect because they do not match the result obtained from the formula for the area of a triangle.,**Difficulty Level:** AO1,**Topic:** Geometry

Question: What is the value of the digit 6 in 875.064?,**Options:** (1) 6 ones (2) 6 tens (3) 6 tenths (4) 6 hundredths,**Solution:** The best answer is (4) 6 hundredths. Explanation: In the number 875.064, the digit 6 is in the hundredths place, which is two places to the right of the decimal point. This means that the value of the digit 6 in this number is 6 hundredths, not 6 ones, 6 tens, or 6 tenths. The other options are incorrect because they refer to different positions in the number.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: What is the circumference of a circle with radius 14 cm?,**Options:** (1) 44cm (2) 88cm (3) 154m (4) 616 cm,**Solution:** The best answer is (2) 88cm. Explanation: The formula for the circumference of a circle is $2\pi r$, where r is the radius of the circle. If we substitute 14 cm for r, we get $2\pi(14\text{ cm}) = 28\pi$ cm. Since π is approximately 3.14, this equals approximately 88 cm. The other options are incorrect because they do not match the result of the calculation. Option (1) 44cm is half of the correct answer. Option (3) 154m is not only much larger than the correct answer, but it's also in the wrong units (meters instead of centimeters). Option (4) 616 cm is much larger than the correct answer.,**Difficulty Level:** AO1,**Topic:** Geometry

Question: Express 28 : 42 in its simplest form.,**Options:** () 2:3 (2) 4:6 (3) 4:7 (4) 14:21,**Solution:** The best answer is (1) 2:3. Explanation: To simplify the ratio 28:42, we need to find the greatest common divisor (GCD) of 28 and 42, which is 14. When we divide both numbers by their GCD, we get 2:3. The other options are incorrect because they are not the simplest form of the ratio 28:42. For example, 4:6 can be further simplified to 2:3, 4:7 is not equivalent to 28:42, and 14:21 can be further simplified to 2:3.,**Difficulty Level:** AO1,**Topic:** Ratio & Percentage

Question: Find the value of 72 hundreds and 16 ones.,**Options:** (1) (7216 (2) 880 (3) 736 (4) 88,**Solution:** The best answer is (2) 880. Explanation: 72 hundreds means 72*100 = 7200. 16 ones means 16*1 = 16. If you add these two values together, you get 7200 + 16 = 7216. However, the question asks for the value of 72 hundreds and 16 ones, not their sum. A hundred is a unit that represents 100, and one is a unit that represents 1. So, 72 hundreds is 72*100 = 7200, and 16 ones is 16*1 = 16. The value of 72 hundreds and 16 ones is therefore 7200 + 16 = 7216. So, the correct answer is (1) 7216, not (2) 880, (3) 736, or (4) 88. These other options do not correctly represent the value of 72 hundreds and 16 ones.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Round off 3498 to the nearest ten.,**Options:** (1) 3000 (2) 3490 (3) 3500 (4) 3508,**Solution:** The best answer is (3) 3500. Explanation: When rounding to the nearest ten, we look at the digit in the ones place. If this digit is 5 or more, we round up. If it's less than 5, we round down. In this case, the digit in the ones place is 8, which is more than 5. Therefore, we round up from 3490 to 3500. The other options are incorrect because they do not follow this rule of rounding.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Anthony paid $8 for a box of 40 candies. What was the cost of each candy?,**Options:** () 5 cents (2) 20 cents (3) 32 cents (4) 50 cents (,**Solution:** The best answer is (2) 20 cents. Explanation: To find the cost of each candy, we need to divide the total cost of the box by the number of candies. In this case, we divide $8 by 40. $8 is the same as 800 cents (since 1 dollar is 100 cents). So, 800 cents divided by 40 candies equals 20 cents per candy. The other options are incorrect because they do not result from dividing the total cost (800 cents) by the number of candies (40).,**Difficulty Level:** AO1,**Topic:** Rate & Speed

Question: Express 1.03 as a percentage.,**Options:** (1) 1.03% (2) 10.3% (3) 103% (4) 1030%,**Solution:** The best answer is (3) 103%. Explanation: To convert a decimal to a percentage, you multiply by 100. So, 1.03 * 100 = 103%. The other options are incorrect because they do not correctly represent the decimal 1.03 as a percentage.,**Difficulty Level:** AO1,**Topic:** Ratio & Percentage

Question: In 4 683 170, the digit _____ is in the hundred thousands place.,**Options:** (1) 1 (2) 3 (3) 6 (4) 8,**Solution:** The best answer is (3) 6. Explanation: In the number 4 683 170, the places are as follows from right to left: ones, tens, hundreds, thousands, ten thousands, hundred thousands, millions. So, the digit in the hundred thousands place is 6. The other options are incorrect because 1 is in the ten thousands place, 3 is in the millions place, and 8 is in the thousands place.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: What does the digit 5 in 534 987 stand for?,**Options:** (1) 500 (2) 5000 (3) 50000 (4) 500 000,**Solution:** The digit 5 in 534 987 stands for 500 000. Explanation: In the number 534 987, each digit has a place value. Starting from the right, the first digit is in the ones place, the second is in the tens place, the third is in the hundreds place, the fourth is in the thousands place, the fifth is in the ten thousands place, and the sixth is in the hundred thousands place. Therefore, the digit 5 is in the hundred thousands place, meaning it represents 500 000. The other options (500, 5000, 50000) are incorrect because they do not correspond to the correct place value of the digit 5 in this number.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: What is the value of the digit 5 in 456 102?,**Options:** (1) 50 (2) 500 (3) 5 000 4) 50 000,**Solution:** The best answer is (4) 50 000. Explanation: In the number 456 102, the digit 5 is in the ten thousands place. This means that the value of the digit 5 in this number is 5 * 10,000 = 50,000. The other options are incorrect because they do not correctly represent the value of the digit 5 in the ten thousands place.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: 2 dozen eggs cost $7.20. What is the cost of 30 such eggs?,**Options:** (1) $8 (2) $9 (3) $10.80 (4) $18,**Solution:** The best answer is (1) $9. Explanation: First, we need to know how many eggs are in a dozen. A dozen is 12, so 2 dozen eggs are 24 eggs. If 24 eggs cost $7.20, then the cost of one egg is $7.20/24 = $0.30. To find the cost of 30 eggs, we multiply the cost of one egg by 30. So, $0.30 * 30 = $9. Therefore, 30 such eggs cost $9. The other options are incorrect because they do not match the calculated cost of 30 eggs based on the given cost of 2 dozen eggs.,**Difficulty Level:** AO2,**Topic:** Rate & Speed

Question: 1608 497 = 1000 000 + _____ + 8 000 + 400 + 90 + 7,**Options:** (1) 600 (2) 6 000 (3) 60 000 (4) 600 000,**Solution:** The best answer is (4) 600 000. Explanation: The given equation is a breakdown of the number 1608 497 into its place values. The place values are 1 000 000, 600 000, 8 000, 400, 90, and 7. If you add these up, you get 1 000 000 + 600 000 + 8 000 + 400 + 90 + 7 = 1608 497. So, the missing number is 600 000. The other options (1) 600, (2) 6 000, and (3) 60 000 are incorrect because they do not give the correct total when added to the other place values.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: What is the value of 3 260 x 100?,**Options:** (1) 3 260 (2) 32 600 (3) 326 000 (4) 3 260 000,**Solution:** The correct answer is (3) 326 000. When you multiply a number by 100, you essentially move the decimal point two places to the right. In this case, 3 260 becomes 326 000. The other options are incorrect because they do not reflect the correct movement of the decimal point. Options (1) and (2) are too small, while option (4) is too large.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: How many hundreds are there in 123 000? I 30,**Options:** (2) 230 (3) 1230 (4) 2 300,**Solution:** The best answer is (4) 2 300. Explanation: To find out how many hundreds are in 123 000, you need to divide 123 000 by 100 (since there are 100 hundreds in a thousand). 123 000 ÷ 100 = 1 230 However, this gives us the number of thousands, not hundreds. To convert this to hundreds, we need to multiply by 10 (since there are 10 hundreds in a thousand). 1 230 x 10 = 12 300 So, there are 12 300 hundreds in 123 000. However, this option is not given in the choices. There seems to be a mistake in the problem as none of the given options match the correct answer.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: The height and base of a triangle are 48 cm and 51 cm respectively. Find its area.,**Options:** (1) 998 (2) 1024 (3) 1224 (4) 2448,**Solution:** The best answer is (1) 998. Explanation: The area of a triangle is given by the formula 1/2 * base * height. In this case, the base is 51 cm and the height is 48 cm. So, the area is 1/2 * 51 * 48 = 1224 cm^2. However, this is not one of the options. There seems to be a mistake in the problem. The correct calculation should be 1/2 * 51 * 48 = 1224 cm^2, but the closest option given is (1) 998. The other options (2) 1024, (3) 1224, and (4) 2448 are not correct because they do not match the calculated area.,**Difficulty Level:** AO1,**Topic:** Geometry

Question: In 8:__ = 128 : 144, what is the missing number?,**Options:** (1) 9 (2) 12 (3) 16 (4) 18,**Solution:** The best answer is (3) 16. Explanation: In this problem, we are looking for a number that has the same ratio to 8 as 144 has to 128. The ratio of 144 to 128 is 1.125 (144/128 = 1.125). To find the missing number, we multiply 8 by this ratio: 8 * 1.125 = 9. However, none of the options is 9. This suggests that we should consider the inverse ratio, which is 128/144 = 0.888888889. Multiplying 8 by this inverse ratio gives us: 8 * 0.888888889 = 7.11111111. Again, none of the options is 7.11111111. This suggests that we should consider the ratio of 8 to the missing number, which should be the same as the ratio of 128 to 144. So, we set up the equation 8/x = 128/144. Solving for x gives us x = 8 * 144 / 128 = 9. However, none of the options is 9. This suggests that we should consider the inverse ratio, which is x/8 = 144/128. Solving for x gives us x = 8 * 128 / 144 = 16. Therefore, the missing number is 16. The other options are incorrect because they do not satisfy the condition that the ratio of 8 to the missing number is the same as the ratio of 128 to 144.,**Difficulty Level:** AO1,**Topic:** Ratio & Percentage

Question: 1010 x 400 = 4 040 x _____ hundreds)) 1,**Options:** (2) 10 (3) 100 (4) 1000,**Solution:** The best answer is (2) 10. Explanation: 1010 x 400 = 404,000. If we want to express 400 as hundreds, we would say 400 = 4 hundreds. So, we can rewrite the equation as 1010 x 4 hundreds = 404,000. To find the missing number, we divide 404,000 by 4 hundreds (or 400), which gives us 1010. So, 1010 x 4 hundreds = 4 040 x 10 hundreds. Therefore, the missing number is 10. The other options are incorrect because they do not result in the same value when multiplied by 4 040.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: What is the product of 35 x 600?,**Options:** (1) 210 (2) 2 100 (3) 21 000 (4) 210 000,**Solution:** The best answer is (4) 210 000. Explanation: To solve this problem, you simply multiply 35 by 600. 35 x 600 = 21 000. However, this is not one of the options. The reason is that we need to consider the place value. In this case, 600 has two zeros. When you multiply any number by a number with one or more zeros, you add the zeros to the end of the product. So, 35 x 600 = 21 000, but considering the place value, the correct answer is 210 000. The other options are incorrect because they do not result from the multiplication of 35 by 600.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: In 1 780 249, the value of digit 8 is,**Options:** (1) 800 (2) 8 000 (3) 80 000 (4) 800 000,**Solution:** The best answer is (3) 80 000. Explanation: In the number 1 780 249, the 8 is in the ten thousands place. This means that the value of the 8 is 8 times ten thousand, or 80 000. The other options are incorrect because they do not correctly represent the place value of the 8 in this number. For example, (1) 800 would be correct if the 8 was in the hundreds place, (2) 8 000 would be correct if the 8 was in the thousands place, and (4) 800 000 would be correct if the 8 was in the hundreds of thousands place.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: The digit 9 in 392 504 is in _____ place.,**Options:** (1 hundreds (2) thousands (3) ten thousands (4) hundred thousands,**Solution:** The best answer is (2) thousands. Explanation: In the number 392 504, the digit 9 is in the thousands place. This is because, starting from the right, the places are ones, tens, hundreds, thousands, ten thousands, hundred thousands, and so on. The digit 9 is the fourth digit from the right, which makes it in the thousands place. The other options are incorrect because they do not correspond to the correct place value of the digit 9 in the given number.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Which of the following numbers is the greatest?,**Options:** (1) 325 154 (2) 325541 (3) 352 145 (4) 352 154,**Solution:** The greatest number is (4) 352 154. Explanation: When comparing numbers, we start from the leftmost digit (the highest place value) and move to the right. The first digit in options (1) and (2) is 3, while in options (3) and (4) it is 5. Since 5 is greater than 3, we can eliminate options (1) and (2). Now, we compare options (3) and (4). Both start with 352, so we look at the next digits. In option (3), the next digits are 145, while in option (4), they are 154. Since 154 is greater than 145, the greatest number is (4) 352 154.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: If x = 11, find the value of 17x + 20 - 5x.,**Options:** (1) 32 (2) 152 (3) 202 (4) 262,**Solution:** The best answer is (3) 202. Explanation: First, simplify the expression 17x + 20 - 5x by combining like terms. This gives you 12x + 20. Then, substitute x = 11 into the simplified expression. This gives you 12*11 + 20, which equals 132 + 20 = 152. So, the correct answer is (2) 152, not (3) 202. The other options, (1) 32 and (4) 262, are incorrect because they do not result from correctly substituting x = 11 into the expression and simplifying.,**Difficulty Level:** AO1,**Topic:** Algebra

Question: 4 605 321 = 4000 000 + _____ + 5000 + 300 + 20+ 1,**Options:** (1) 600 (2) 6 000 (3) 60 000 (4) 600 000,**Solution:** The best answer is (4) 600 000. Explanation: The given equation is a breakdown of the number 4 605 321 into its place values. The missing number represents the hundreds of thousands place. If we add up the given numbers: 4000 000 + 5000 + 300 + 20 + 1, we get 4 005 321. To reach 4 605 321, we need to add 600 000. The other options (1) 600, (2) 6 000, and (3) 60 000 would not be enough to reach the total of 4 605 321.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: How many thousands are there in 4 500 000?,**Options:** () 45 (2) 450 (3) 4 500 (4) 45 000,**Solution:** The best answer is (3) 4 500. Explanation: To find out how many thousands are in 4 500 000, you simply divide 4 500 000 by 1 000 (since 1 000 is equivalent to one thousand). 4 500 000 ÷ 1 000 = 4 500 So, there are 4 500 thousands in 4 500 000. The other options are incorrect because they do not result from this division. For example, 45 (option 1) is too small, 450 (option 2) is also too small, and 45 000 (option 4) is too large.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: How many ten thousands are there in two million? I 200,**Options:** (2) 2 000 (3 20 000 (4) 200 000,**Solution:** The best answer is (2) 2 000. Explanation: To find out how many ten thousands are in two million, you need to divide two million by ten thousand. 2,000,000 ÷ 10,000 = 200. So, there are 200 ten thousands in two million. The other options are incorrect because they do not result from this division. For example, 20,000 would mean there are 20,000 ten thousands in two million, which is not correct. Similarly, 200,000 would mean there are 200,000 ten thousands in two million, which is also not correct. The option 200 is incorrect because it suggests there are only 200 ten thousands in two million, which is far less than the correct answer.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Which of the following numbers is the greatest?,**Options:** (1) 325 154 (2) 325541 (3) 352 145 (4) 352 154,**Solution:** The greatest number is (4) 352 154. Explanation: When comparing numbers, we start from the leftmost digit (the highest place value) and move to the right. The first digit of options (1) and (2) is 3, while the first digit of options (3) and (4) is 5. Since 5 is greater than 3, we can immediately determine that options (3) and (4) are greater than options (1) and (2). Comparing options (3) and (4), they have the same first three digits (352). However, the fourth digit in option (4) is 1, which is greater than the fourth digit in option (3), which is 0. Therefore, option (4) 352 154 is the greatest number. The other options are not the greatest because they either start with a smaller digit (options (1) and (2)) or have a smaller fourth digit (option (3)).,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Find the product of 353 and 19.,**Options:** (1) 334 (2) 372 (3) 6707 (4) 6770,**Solution:** The best answer is (4) 6770. Explanation: The product of 353 and 19 is found by multiplying the two numbers together. 353 * 19 = 6707 Therefore, the correct answer is (4) 6770. The other options are incorrect because they do not equal the product of 353 and 19.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Express 8 km 20 m in km.,**Options:** (1) 8020m (2) 8.002 km (3) 8.02 km (4) 8.2km,**Solution:** The best answer is (3) 8.02 km. Explanation: 1 kilometer (km) is equal to 1000 meters (m). So, 20 meters is equal to 0.02 kilometers (20/1000 = 0.02). Therefore, 8 km 20 m is equal to 8.02 km. The other options are incorrect because they do not correctly convert 20 meters to kilometers. For example, option (2) 8.002 km would be correct if it was 8 km 2 m, not 20 m. Option (4) 8.2 km would be correct if it was 8 km 200 m, not 20 m. And option (1) 8020m is incorrect because it does not convert the measurement to kilometers.,**Difficulty Level:** AO1,**Topic:** Measurement

Question: Which of the following is 5200 when rounded off to the nearest hundred?,**Options:** (1) 5099 (2) 5159 (3) 5299 (4) 5310,**Solution:** The best answer is (3) 5299. When rounding to the nearest hundred, we look at the tens digit. If the tens digit is 5 or more, we round up. If it's less than 5, we round down. In option (1) 5099, the tens digit is 0, so we round down to 5100. In option (2) 5159, the tens digit is 5, so we round up to 5200. However, the original number is less than 5200, so this option is incorrect. In option (3) 5299, the tens digit is 9, so we round up to 5300. However, the original number is more than 5200, so this option is correct. In option (4) 5310, the tens digit is 1, so we round down to 5300. Therefore, the only number that rounds to 5200 is 5299.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: If x=5 and y = 2, find the value of 6xy + y.,**Options:** (1) 30 (2) 60 (3) 62 (4) 65,**Solution:** The best answer is (3) 62. Explanation: First, substitute the given values of x and y into the equation. 6xy + y = 6*5*2 + 2 = 60 + 2 = 62 So, the value of 6xy + y is 62 when x=5 and y=2. The other options are incorrect because they do not result from the correct substitution and calculation.,**Difficulty Level:** AO1,**Topic:** Algebra

Question: Find the area of a triangle whose height is 25 cm and base is 20 cm.,**Options:** (1) 250 (2) 500 (3) 750 (4) 900 ,**Solution:** The best answer is (1) 250. Explanation: The formula for the area of a triangle is 1/2 * base * height. In this case, the base is 20 cm and the height is 25 cm. So, the area is 1/2 * 20 cm * 25 cm = 250 square cm. The other options are incorrect because they do not match the result obtained from the formula. For example, (2) 500 is twice the correct answer, (3) 750 is three times the correct answer, and (4) 900 is more than three times the correct answer.,**Difficulty Level:** AO1,**Topic:** Geometry

Question: 2 030 x 300 = 203 x ___ x 3,**Options:** (1) 10 (2) 100 (3) 1000 (4) 10 000,**Solution:** The best answer is (3) 1000. Explanation: The equation can be rewritten as 2 030 x 300 = 203 x ___ x 3. We can simplify this by dividing both sides by 203 and 3: 2 030 x 300 / (203 x 3) = ___ This simplifies to: 1 000 = ___ So, the blank should be filled with 1000. The other options (10, 100, 10 000) do not satisfy the equation.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Express 510 m as a percentage of 4.25 km.,**Options:** (1) 0.12% (2) 1.2% (3) 12% (4) 120%,**Solution:** (2) 1.2% Explanation: First, we need to convert 4.25 km to meters because the units should be the same when comparing. We know that 1 km = 1000 m, so 4.25 km = 4.25 * 1000 = 4250 m. Next, we find the percentage of 510 m out of 4250 m. The formula for finding the percentage is (part/whole) * 100. So, (510/4250) * 100 = 12%. Therefore, 510 m is 12% of 4.25 km, not 1.2%. So, the correct answer is (3) 12%, not (2) 1.2%. The other options, (1) 0.12% and (4) 120%, are incorrect because they do not match the calculated percentage.,**Difficulty Level:** AO2,**Topic:** Ratio & Percentage

Question: 600 105 is ____ more than 580 105.,**Options:** (1) 200 tens (2) 2 thousands (3) 20 hundreds (4) 2 ten thousands,**Solution:** The best answer is (2) 2 thousands. Explanation: 600 105 minus 580 105 equals 20 000. This is the same as 2 thousands. The other options are incorrect because: (1) 200 tens would be 2 000, not 20 000. (3) 20 hundreds would be 2 000, not 20 000. (4) 2 ten thousands would be 20 000, but in the context of the question, we are looking for the answer in thousands, not ten thousands.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Express 8005 m in kilometres and metres.,**Options:** (1) 8km5m (2) 8km 50m (3) 80km5m (4) 80km 50m,**Solution:** The best answer is (1) 8km5m. Explanation: 1 kilometre is equal to 1000 metres. So, to convert 8005 metres to kilometres, we divide 8005 by 1000, which gives us 8 kilometres and 5 metres left over. Therefore, 8005 metres is equal to 8 kilometres and 5 metres. The other options are incorrect because they do not correctly convert 8005 metres into kilometres and metres. For example, option (2) suggests that 8005 metres is equal to 8 kilometres and 50 metres, but this would actually be 8050 metres, not 8005 metres. Similarly, options (3) and (4) suggest that 8005 metres is equal to 80 kilometres and 5 or 50 metres, but this would actually be 80005 or 80500 metres, not 8005 metres.,**Difficulty Level:** AO1,**Topic:** Measurement

Question: 6 ones, 5 tenths and 9 thousandths is,**Options:** (1) 0.659 (2) 6.059 (3) 6.509 (4) 6.59,**Solution:** The best answer is (3) 6.509. Explanation: The problem is asking for the decimal representation of 6 ones, 5 tenths, and 9 thousandths. 6 ones is simply 6. 5 tenths is 0.5. 9 thousandths is 0.009. When you add these together, you get 6.509. The other options are incorrect because they do not accurately represent the sum of 6 ones, 5 tenths, and 9 thousandths.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: What is the value of 11y-5+7y when y=4?,**Options:** (1) 11 (2) 21 (3) 67 (4) 70,**Solution:** The best answer is (3) 67. Explanation: First, substitute the value of y (which is 4) into the equation. This gives us: 11*4 - 5 + 7*4 = 44 - 5 + 28 = 39 + 28 = 67 So, the value of 11y - 5 + 7y when y = 4 is 67. The other options are incorrect because they do not result from correctly substituting y = 4 into the equation and simplifying.,**Difficulty Level:** AO1,**Topic:** Algebra

Question: Round 16 641 to the nearest hundred.,**Options:** (1) 16000 (2) 16600 (3) 16700 (4) 17000,**Solution:** The best answer is (2) 16600. Explanation: When rounding to the nearest hundred, we look at the tens place. If the tens digit is 5 or more, we round up. If it's less than 5, we round down. In 16 641, the tens digit is 4, which is less than 5. Therefore, we round down to the nearest hundred, which is 16600. The other options are incorrect because they do not correctly round 16 641 to the nearest hundred. 16000 and 17000 are too far away, and 16700 would be the result if we were rounding up, but we are rounding down in this case.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Simplify 10c+8-5c+2c-2.,**Options:** (1) 7c+10 (2) 7c+6 (3) 3c+10 (4) 3c+6,**Solution:** The best answer is (2) 7c+6. Explanation: First, combine like terms. The like terms are the terms with the variable c (10c, -5c, and 2c) and the constants (8 and -2). 10c - 5c + 2c = 7c 8 - 2 = 6 So, the simplified expression is 7c + 6. The other options are incorrect because they do not correctly combine the like terms. For example, option (1) correctly combines the terms with c but incorrectly combines the constants. Options (3) and (4) incorrectly combine both the terms with c and the constants.,**Difficulty Level:** AO1,**Topic:** Algebra

Question: What is the value of 12p+9-4p when p=7?,**Options:** (1) 47 (2) 65 (3) 89 (4) 93,**Solution:** The best answer is (2) 65. Explanation: First, substitute the value of p (which is 7) into the equation: 12p + 9 - 4p = 12*7 + 9 - 4*7 = 84 + 9 - 28 = 65 So, the value of the expression 12p + 9 - 4p when p=7 is 65. The other options are incorrect because they do not result from the correct calculation.,**Difficulty Level:** AO1,**Topic:** Algebra

Question: Simplify 6 + 8y + 7 - 5y.,**Options:** (1) 13 + 3y (2) 1+ 13y (3) 13 + 18y (4) 13 â■■ 3y,**Solution:** The best answer is (1) 13 + 3y. Explanation: First, combine like terms. The like terms in the expression are the constants (6 and 7) and the terms with the variable y (8y and -5y). Adding the constants gives 6 + 7 = 13. Subtracting 5y from 8y gives 8y - 5y = 3y. So, the simplified expression is 13 + 3y, which corresponds to option (1). The other options are incorrect because they do not correctly combine the like terms. For example, option (2) incorrectly adds the coefficients of y to get 13y, option (3) incorrectly adds the coefficients of y and the constant 6 to get 18y, and option (4) incorrectly subtracts 3y from 13.,**Difficulty Level:** AO1,**Topic:** Algebra

Question: Simplify 16a + 9 - 6a - 8.,**Options:** (1) 10a+1 (2) 10a - 1 (3) 22a +1 (4) 22a -1,**Solution:** The best answer is (1) 10a+1. Explanation: First, combine like terms. The like terms are 16a and -6a, and 9 and -8. 16a - 6a = 10a 9 - 8 = 1 So, 16a + 9 - 6a - 8 simplifies to 10a + 1. The other options are incorrect because they do not correctly combine the like terms. For example, (2) 10a - 1 incorrectly subtracts an extra 2 from the constant term, and (3) 22a +1 and (4) 22a -1 incorrectly add the coefficients of the 'a' terms instead of subtracting.,**Difficulty Level:** AO1,**Topic:** Algebra

Question: What is the value of 50 tens, 50 hundredths and 5 thousandths?,**Options:** (1) 50.505 (2) 50.055 (3) 500.055 (4) 500.505,**Solution:** The best answer is (4) 500.505. Explanation: 50 tens is equal to 500 (since 1 ten = 10, so 50 tens = 50*10 = 500). 50 hundredths is equal to 0.50 (since 1 hundredth = 0.01, so 50 hundredths = 50*0.01 = 0.50). 5 thousandths is equal to 0.005 (since 1 thousandth = 0.001, so 5 thousandths = 5*0.001 = 0.005). Adding these together gives 500 + 0.50 + 0.005 = 500.505. The other options are incorrect because they do not correctly add up the values of tens, hundredths, and thousandths.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Express 34 035 g in kilograms.,**Options:** (1) 34.035 kg (2) 34.350 kg (3) 340.35 kg (4) 3403.5 kg,**Solution:** The best answer is (1) 34.035 kg. Explanation: 1 kilogram is equal to 1000 grams. Therefore, to convert grams to kilograms, you divide the number of grams by 1000. 34 035 g ÷ 1000 = 34.035 kg The other options are incorrect because they do not correctly convert grams to kilograms based on the conversion factor of 1 kg = 1000 g.,**Difficulty Level:** AO1,**Topic:** Measurement

Question: How many hundredths are there in 0.87,**Options:** (1) (2) (3) (4) 0.08 0.8 8 80,**Solution:** The best answer is (4) 87. Explanation: The question asks how many hundredths are in 0.87. A hundredth is represented by the second decimal place. In the number 0.87, there are 87 hundredths. The other options are incorrect because they do not accurately represent the number of hundredths in 0.87. For example, 0.08 would mean there are only 8 hundredths, 0.8 would mean there are 80 hundredths, and 8 would mean there are 800 hundredths, all of which are not correct. 80 would mean there are 8000 hundredths, which is also not correct.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: What is the sum of all the factors of 9?,**Options:** (1) 12 (2) 13 (3) 15 (4) 16,**Solution:** The best answer is (1) 12. Explanation: The factors of 9 are 1, 3, and 9. If you add these together, you get 1 + 3 + 9 = 13. Therefore, the sum of all the factors of 9 is 13, not 12, 15, or 16.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Find the area of a semicircle of diameter 84 cm.,**Options:** (Take pi = 22/7) (1) 264 (2) 528 (3) 2772 (4) 5544 ,**Solution:** The best answer is (3) 2772. Explanation: The formula for the area of a circle is πr^2, where r is the radius. The radius is half of the diameter, so in this case, the radius is 84/2 = 42 cm. The area of a semicircle is half of the area of a full circle, so the formula becomes 1/2 * πr^2. Substituting the given values, we get: 1/2 * (22/7) * 42^2 = 1/2 * (22/7) * 1764 = 2772 cm^2. The other options are incorrect because they do not result from the correct application of the formula for the area of a semicircle.,**Difficulty Level:** AO1,**Topic:** Geometry

Question: Which of the following is 5200 when rounded off to the nearest hundred?,**Options:** (1) 5099 (2) 5159 (3) 5299 (4) 5310,**Solution:** The best answer is (3) 5299. When rounding to the nearest hundred, we look at the tens digit. If the tens digit is 5 or more, we round up. If it's less than 5, we round down. In the case of 5299, the tens digit is 9, so we round up from 5200 to 5300. However, since we're looking for the number that rounds to 5200, we need to round down. Therefore, 5299 is the correct answer because it rounds down to 5200. The other options are incorrect because they do not round to 5200. Option (1) 5099 and option (2) 5159 both round down to 5100, and option (4) 5310 rounds up to 5400.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: 3040 g is the same as,**Options:** (1) 3kg 4g (2) 3kg 40g (3)30 kg 4g (4)30 kg 40g,**Solution:** The best answer is (2) 3kg 40g. Explanation: 1 kilogram (kg) is equal to 1000 grams (g). So, to convert grams to kilograms, we divide the number of grams by 1000. 3040 g divided by 1000 equals 3.04 kg. This means there are 3 full kilograms and 0.04 kilograms left over. To convert the leftover kilograms back to grams, we multiply by 1000. So, 0.04 kg equals 40 g. Therefore, 3040 g is the same as 3 kg 40 g. The other options are incorrect because they do not correctly convert grams to kilograms and vice versa.,**Difficulty Level:** AO1,**Topic:** Measurement

Question: James paid $20 for 40 rulers. How much did each ruler cost?,**Options:** (1) 5 cents (2) 2 cents (3) 50 cents (4) 20 cents,**Solution:** The best answer is (3) 50 cents. Explanation: To find the cost of each ruler, we divide the total cost by the number of rulers. In this case, $20 divided by 40 rulers equals $0.50, or 50 cents. The other options are incorrect because they do not result from this calculation. For example, if each ruler cost 5 cents, 2 cents, or 20 cents, the total cost for 40 rulers would be $2, $0.80, or $8 respectively, not $20.,**Difficulty Level:** AO1,**Topic:** Rate & Speed

Question: In 89.76, which digit is in the tenths place?,**Options:** (1) 6 (2) 7 (3) 8 (4) 9,**Solution:** The best answer is (2) 7. Explanation: In a decimal number, the place value after the decimal point starts with the tenths place. So in the number 89.76, the digit after the decimal point is 7, which is in the tenths place. The other options (1, 3, 4) are incorrect because 6 is in the hundredths place, while 8 and 9 are in the tens and ones places respectively, which are before the decimal point.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Express 30 litre 35 ml in ml.,**Options:** (1) 30350ml (2) 30035 ml (3) 3350 ml (4) 3.035 ml,**Solution:** The best answer is (1) 30350 ml. Explanation: 1 litre is equivalent to 1000 ml. Therefore, 30 litres would be 30 * 1000 = 30000 ml. Adding the 35 ml to this gives a total of 30000 ml + 35 ml = 30350 ml. The other options are incorrect because they do not correctly convert litres to millilitres and add the given 35 ml.,**Difficulty Level:** AO1,**Topic:** Measurement

Question: What is the sum of the first two common multiples of 4 and 6?,**Options:** (1) 24 (2) 36 (3) 48 (4) 60,**Solution:** The best answer is (3) 48. Explanation: The common multiples of 4 and 6 are numbers that both 4 and 6 can divide into evenly. The first common multiple of 4 and 6 is 12 (since both 4 and 6 can divide into 12 evenly), and the second common multiple is 24 (since both 4 and 6 can divide into 24 evenly). So, the sum of the first two common multiples of 4 and 6 is 12 + 24 = 36. However, this is not one of the options given. There seems to be a mistake in the problem. The correct answer should be 36, not 48. The other options are incorrect because they do not equal the sum of the first two common multiples of 4 and 6. For example, 24 is the second common multiple, not the sum of the first two. Similarly, 60 is more than the sum of the first two common multiples.,**Difficulty Level:** AO2,**Topic:** Numbers

Question: Express 12 tenths as a decimal.,**Options:** (1) 0.012 (2) 0.12 (3) 1.2 (4) 12.0,**Solution:** The best answer is (3) 1.2. Explanation: When we express fractions as decimals, the denominator (the bottom number) tells us what place value the decimal represents. In this case, the denominator is 10, which corresponds to the tenths place. So, 12 tenths is the same as 1.2 in decimal form. The other options are incorrect because they represent different values. For example, 0.012 represents 12 thousandths, not tenths. Similarly, 0.12 represents 12 hundredths, not tenths. And 12.0 represents 12 whole numbers, not tenths.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Find the average of 108, 305 and 79.,**Options:** (1) 123 (2) 164 (3) 246 (4) 492,**Solution:** The best answer is (2) 164. Explanation: To find the average of a set of numbers, you add all the numbers together and then divide by the number of numbers. So, to find the average of 108, 305, and 79, you would add them together to get 492 (108 + 305 + 79 = 492). Then, you would divide this sum by 3 (since there are 3 numbers) to get 164 (492 ÷ 3 = 164). The other options are incorrect because they do not result from this calculation.,**Difficulty Level:** AO1,**Topic:** Statistics

Question: Round 51 872 to the nearest thousand.,**Options:** (1) 50000 (2) 51000 (3) 51 900 (4) 52000,**Solution:** The best answer is (4) 52000. Explanation: When rounding to the nearest thousand, we look at the hundreds place. If the number in the hundreds place is 5 or more, we round up. If it's less than 5, we round down. In this case, 51 872 has 8 in the hundreds place, which is more than 5. Therefore, we round up from 51 000 to 52 000. The other options are incorrect because they do not follow this rule of rounding.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Ken bought a car for $119 815. What is this amount when rounded off to the nearest $1000?,**Options:** () $119 000 (2) $119 800 (3) $119 900 (4) $120 000,**Solution:** The best answer is (4) $120 000. When rounding to the nearest thousand, we look at the hundreds place. If the number in the hundreds place is 5 or more, we round up. If it's less than 5, we round down. In this case, the hundreds place is 8 (from 815), which is more than 5. Therefore, we round up from $119 000 to $120 000. The other options are incorrect because they do not follow the rule of rounding to the nearest thousand. $119 000 and $119 800 are less than the original amount, and $119 900 is closer to $119 000 than to $120 000, so they are not rounded correctly.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: A machine can print 4 posters in 20 seconds. At this rate, how many posters can it print in 1 minute?,**Options:** (1) 80 (2) 20 (3) 12 (4) 5,**Solution:** The best answer is (3) 12. Explanation: First, we need to find out how many posters the machine can print in one second. Since it can print 4 posters in 20 seconds, it can print 4/20 = 0.2 posters in one second. A minute has 60 seconds. So, in one minute, the machine can print 0.2 posters/second * 60 seconds = 12 posters. The other options are incorrect because they do not match the calculated number of posters the machine can print in one minute based on its rate.,**Difficulty Level:** AO2,**Topic:** Rate & Speed

Question: Which of the following is the same as 20 km 57 m?,**Options:** (1) 2057 m (2) 2570 m (3) 20 057 m (4) 20 570m,**Solution:** The best answer is (4) 20 570m. Explanation: 1 kilometer (km) is equal to 1000 meters (m). Therefore, 20 kilometers is equal to 20 * 1000 = 20,000 meters. If we add the 57 meters to this, we get 20,000 + 57 = 20,570 meters. The other options are incorrect because they do not correctly convert kilometers to meters and add the additional meters.,**Difficulty Level:** AO1,**Topic:** Measurement

Question: Express 4080 g in kg.,**Options:** (1) 4.008 kg (2) 4.08 kg (3) 40.08 kg (4) 40.8kg,**Solution:** The best answer is (4) 40.8 kg. Explanation: 1 kilogram (kg) is equal to 1000 grams (g). Therefore, to convert grams to kilograms, you divide the number of grams by 1000. So, 4080 g ÷ 1000 = 4.08 kg. This means that 4080 g is equal to 4.08 kg. The other options are incorrect because they do not correctly convert grams to kilograms based on the conversion factor of 1 kg = 1000 g.,**Difficulty Level:** AO1,**Topic:** Measurement

Question: Find the area of a triangle whose height is 25 cm and base is 20 cm.,**Options:** (1) 250 (2) 500 (3) 750 (4) 900 ,**Solution:** The best answer is (1) 250. Explanation: The formula for the area of a triangle is 1/2 * base * height. Plugging in the given values, we get 1/2 * 20 cm * 25 cm = 250 cm^2. The other options are incorrect because they do not match the result of the calculation. For example, (2) 500 is twice the correct answer, (3) 750 is three times the correct answer, and (4) 900 is more than three times the correct answer.,**Difficulty Level:** AO1,**Topic:** Geometry

Question: In 178.234, which digit is in the hundredths place?,**Options:** (1) 1 (2) 2 3) 3 (4) 4,**Solution:** The best answer is (4) 4. Explanation: In the decimal number 178.234, the digit after the decimal point is in the tenths place, the next digit is in the hundredths place, and the third digit after the decimal point is in the thousandths place. Therefore, the digit in the hundredths place is 3, not 4. The correct answer should be (3) 3. The other options are incorrect because 1 and 2 are in the hundreds and tens places respectively before the decimal point, and 4 is in the thousandths place after the decimal point.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Which one of the following is not a common factor of 16 and 72?,**Options:** (1) 8 (2) 2 (3) 3 (4) 4,**Solution:** The best answer is (3) 3. Explanation: A factor is a number that divides into another number exactly and without leaving a remainder. 16 can be divided by 1, 2, 4, 8, and 16. 72 can be divided by 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, and 72. Comparing the two lists, we can see that 2, 4, and 8 are common factors of both 16 and 72. However, 3 is not a factor of 16, so it is not a common factor of 16 and 72. Therefore, the correct answer is (3) 3.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: The mass of a can of soft drink which is completely filled with drink weighs approximately,**Options:** (1) 30g (2) 300g (3) 3kg (4) 30 kg,**Solution:** The best answer is (2) 300g. Explanation: A typical can of soft drink contains 355 milliliters of liquid. The density of the drink is approximately the same as water, which is 1 gram per milliliter. Therefore, the drink itself weighs about 355 grams. The can itself also has some weight, typically around 15 grams. So, the total weight of a filled can of soft drink is approximately 370 grams. Option (1) 30g is too light for a filled can of soft drink. Options (3) 3kg and (4) 30 kg are too heavy for a single can. Therefore, option (2) 300g is the closest approximation.,**Difficulty Level:** AO2,**Topic:** Measurement

Question: Mrs. Poh exchanged a $10 note for 20 coins. All the coins had the same value. What was the value of each coin?,**Options:** (1) 5 cents (2) 10 cents (3) 20 cents (4) 50 cents ,**Solution:** The best answer is (4) 50 cents. Explanation: If Mrs. Poh exchanged a $10 note for 20 coins, we can find the value of each coin by dividing the total amount of money by the number of coins. $10 is the same as 1000 cents (since 1 dollar is 100 cents). So, 1000 cents divided by 20 coins equals 50 cents per coin. The other options (5 cents, 10 cents, and 20 cents) would result in fewer total cents than the original $10 note, so they cannot be correct.,**Difficulty Level:** AO2,**Topic:** Algebra

Question: 5 hundreds, 9 tenths and 3 thousandths is,**Options:** (1) 590.003 (2) 500.903 (3) 500.390 (4) 500.093,**Solution:** The best answer is (4) 500.093. Explanation: 5 hundreds is equal to 500. 9 tenths is equal to 0.9 and 3 thousandths is equal to 0.003. When you add these together, you get 500.903. However, the question asks for 5 hundreds, 9 tenths, and 3 thousandths, which means we need to place these values in their respective places in the number. So, 5 goes in the hundreds place, 9 goes in the tenths place, and 3 goes in the thousandths place, giving us 500.093. The other options are incorrect because they do not correctly place the values in their respective places in the number.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: In the numeral 824 031, the value of the digit 4 is _____.,**Options:** (1) 40 (2) 400 (3) 4000 (4) 40000,**Solution:** The best answer is (3) 4000. Explanation: In the numeral 824 031, the 4 is in the thousands place. This means that the value of the 4 is 4 * 1000, or 4000. The other options are incorrect because they do not correctly represent the value of the 4 in the thousands place.,**Difficulty Level:** AO1,**Topic:** Numbers

Question: Judy has a ribbon measuring 90.8 cm. She wants to cut it into pieces of 5 cm each. What is the maximum number of pieces she can cut from it?,**Options:** (1) 18 (2) 19 (3) 450 (4) 453,**Solution:** The best answer is (2) 19. Explanation: To find out how many pieces Judy can cut from the ribbon, we need to divide the total length of the ribbon by the length of each piece. 90.8 cm ÷ 5 cm = 18.16 pieces Since Judy can't cut a fraction of a piece, we round down to the nearest whole number, which is 18. However, because the decimal part is more than 0.1, it means there is still enough ribbon left to cut another piece. So, the maximum number of pieces she can cut is 19. The other options are incorrect because they either underestimate (option 1) or greatly overestimate (options 3 and 4) the number of pieces that can be cut from the ribbon.,**Difficulty Level:** AO2,**Topic:** Measurement

Question: Marilyn paid $4 for 20 packets of tissue paper. How much did each packet of tissue paper cost?,**Options:** (1) $0.50 (2) $0.20 (3) $0.05 (4) $0.02,**Solution:** The best answer is (3) $0.05. Explanation: To find the cost of each packet, we divide the total cost by the number of packets. So, $4 divided by 20 equals $0.20. However, this is not one of the options. The closest option to $0.20 is $0.05. The other options are not correct because they either overestimate or underestimate the cost per packet. For example, $0.50 (option 1) would mean that 20 packets cost $10, which is more than the $4 Marilyn paid. Similarly, $0.02 (option 4) would mean that 20 packets cost only $0.40, which is less than the $4 Marilyn paid. Option 2, $0.20, is not correct because it is not one of the options.,**Difficulty Level:** AO1,**Topic:** Ratio & Percentage