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| Section ANo Calculator Permitted | Section BCalculator Permitted |
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27. A B C D
28. A B C D
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| ESDLogo**Grade 8****Common Mathematics Assessment****June 14, 2013****Section A**: **No Calculator Permitted** |
| Name: |  |
| Mathematics Teacher: |  |
| Homeroom: |  |
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**IMPORTANT**

You will need to complete your name and school information in three places:

1. Section A
2. Section B
3. Answer Sheet

**Section A**: **No Calculator Permitted**

12 Selected Response 12 points

5 Constructed Response 11 points

Total 23 points

**Section B**: **Calculator Permitted**

28 Selected Response 28 points

9 Constructed Response 29 points

Total 57 points

 **\_\_\_\_\_\_\_\_\_\_\_\_**

**FINAL 80 Points**

**Selected Response: No Calculator Permitted.**

For items 1 – 12, circle the appropriate response on the answer sheet.

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| 1. | What is the square of 9? |
| (A) | 3 |
| (B) | 4.5 |
| (C) | 18 |
| (D) | 81 |

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| 2. | Which number is represented on the number line below? |
| (A) | $$\sqrt{3}$$ |
| (B) | $$\sqrt{6}$$ |
| (C) | $$\sqrt{9}$$ |
| (D) | $$\sqrt{12}$$ |

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| 3. | What is the best approximation of $\sqrt{20}$ ? |
| (A) | 4.5 |
| (B) | 5.5 |
| (C) | 10 |
| (D) | 40 |

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| 4. | Brad lost 4 points in each hand of cards he played. If he played 3 hands, which statement represents his final score at the end of the game? |
| (A) | $$\left(+3\right)×(-4)$$ |
| (B) | $$\left(+3\right)+(-4)$$ |
| (C) | $$\left(+3\right)×(+4)$$ |
| (D) | $$\left(+3\right)+(+4)$$ |

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| 5. | Which product will have a negative value? |
| (A) | $$\left(-4\right)×\left(-2\right)×(+3)$$ |
| (B) | $$\left(+4\right)×\left(+2\right)×(+3)$$ |
| (C) | $$\left(-4\right)×\left(+2\right)×(+3)$$ |
| (D) | $$\left(+4\right)×\left(-2\right)×(-3)$$ |

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| 6. | Complete the division statement: $ \left( ?\right) ÷\left(-2\right)=(+5)$  |
| (A) | $$-10$$ |
| (B) | $$-7$$ |
| (C) | $$+7$$ |
| (D) | $$+10$$ |

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| 7. | Which operation must be performed first? $\left(+4\right)×\left[\left(-1\right)-\left(+7\right)+\left(-6\right)\right]÷(+2)$ |
| (A) | $$\left(+4\right)×(-1)$$ |
| (B) | $$\left(-1\right)-(+7)$$ |
| (C) | $$\left(+7\right)+(-6)$$ |
| (D) | $$\left(-6\right)÷(+2)$$ |

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| 8. | Which multiplication sentence is modelled? |
| (A) | $$3×\frac{4}{5}=3\frac{4}{5}$$ |
| (B) | $$5×\frac{4}{5}=3\frac{4}{5}$$ |
| (C) | $$5×\frac{3}{4}=3\frac{3}{4}$$ |
| (D) | $$3×\frac{3}{4}=3\frac{3}{4}$$ |

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| 9. | Which product is closest to 0? |
| (A) | $$\frac{1}{2}×\frac{1}{3}$$ |
| (B) | $$\frac{1}{2}×\frac{1}{4}$$ |
| (C) | $$\frac{1}{2}×\frac{1}{5}$$ |
| (D) | $$\frac{1}{2}×\frac{1}{6}$$ |

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| 10. What is the product of $2\frac{1}{2}×\frac{6}{7}$ ? |
|  | (A) | $$2\frac{1}{2}$$ |
|  | (B) | $$2\frac{1}{7}$$ |
|  | (C) | $$2\frac{3}{7}$$ |
|  | (D) | $$2\frac{11}{12}$$ |

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| 11. | Calculate: $16÷\frac{1}{2}$ |
| (A) | 4 |
| (B) | 8 |
| (C) | 16 |
| (D) | 32 |

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| 12. Which expression is **not** equivalent to $\frac{6}{7}÷\frac{1}{2}$ ? |
|  | (A) | $$\frac{6}{7}×\frac{1}{2}$$ |
|  | (B) | $$\frac{6}{7}×\frac{2}{1}$$ |
|  | (C) | $$\frac{12}{14}÷\frac{1}{2}$$ |
|  | (D) | $$\frac{12}{14}÷\frac{7}{14}$$ |

**Constructed Response: No Calculator Permitted.**

Answers to be written on this paper in the space provided. Show all workings.

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| 13. | Is 36 a perfect square? Support your answer using a strategy of your choice. | [2 points] |

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| 14. | Use a model, such as integer counters or a number line, to calculate:$$\left(-4\right)×(+3)$$ | [2 points] |

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| 15. | A student said the answer to this skill testing question was $(-1)$. His solution is as follows:$$\left(-4\right)×\left(+2\right)+\left(+6\right)÷\left(+2\right)$$$$=\left(-8\right)+\left(+6\right)÷\left(+2\right)$$$$=\left(-2\right)÷\left(+2\right)$$$$=\left(-1\right)$$Explain where he made his mistake and give the correct solution. | [2 points] |

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| 16. There were 12 people at a party. Each person ate $\frac{3}{8}$ of a pizza.  How many pizzas were eaten?  | [2 points] |

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| 17. Calculate: $\frac{1}{2}+\frac{2}{3}÷\frac{5}{6}$ | [ 3 points] |

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|  | End of Section A.Please raise your hand and your teacher will collect Section A.You can now begin Section B. |  |

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| ESDLogo**Grade 8****Common Mathematics Assessment****June 14, 2013****Section B**: **Calculator Permitted** |
| Name: |  |
| Mathematics Teacher: |  |
| Homeroom: |  |
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**Section A**: **No Calculator Permitted**

12 Multiple Choice 12 points

5 Constructed Response 11 points

Total 23 points

**Section B**: **Calculator Permitted**

28 Multiple Choice 28 points

9 Constructed Response 29 points

Total 57 points

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**FINAL 80 POINTS**

**Selected Response: Calculator Permitted.**

For items 18 – 45, circle the appropriate response on the answer sheet.

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| 18. | What is the side length of the square below? |
| (A) | 13 cm |
| (B) | 42.25 cm |
| (C) | 52 cm |
| (D) | 84.5 cm |

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| 19. | Which set of numbers is a Pythagorean triple? |
| (A) | 2 – 4 – 6  |
| (B) | 4 – 8 – 12  |
| (C) | 5 – 7 – 9  |
| (D) | 6 – 8 – 10  |

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| 20. | Which net will produce a rectangular prism? |
| (A) |  |
| (B) |  |
| (C) |  |
| (D) |  |

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| 21. | What is the surface area of the prism represented by the net below? |
| (A) | $$26.1 cm^{2}$$ |
| (B) | $$30.0 cm^{2}$$ |
| (C) | $$1052.5 cm^{2}$$ |
| (D) | $$4104.8 cm^{2}$$ |

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| 22. | What is the surface area of the prism shown? |
| (A) | $$9 cm^{2}$$ |
| (B) | $$20 cm^{2}$$ |
| (C) | $$36 cm^{2}$$ |
| (D) | $$48 cm^{2}$$ |

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| 23. | The surface area of a cube is $54 cm^{2}$. What is the area of one face? |
| (A) | $$3 cm^{2}$$ |
| (B) | $$6 cm^{2}$$ |
| (C) | $$9 cm^{2}$$ |
| (D) | $$27 cm^{2}$$ |

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| 24. | Calculate the height of the triangular prism if its volume is $162 cm^{3}$ and base area is $18 cm^{2}$.  |
| (A) | 9 *cm* |
| (B) | 144 *cm* |
| (C) | 180 *cm* |
| (D) | 2916 *cm* |

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| 25. | What is the volume of the cylinder to the nearest $m^{3}$? |
| (A) | $$38 m^{3}$$ |
| (B) | $$75 m^{3}$$ |
| (C) | $$151 m^{3}$$ |
| (D) | $$226 m^{3}$$ |

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| 26. | What percent of the following grid is shaded? |
| (A) | 36.25% |
| (B) | 36.75% |
| (C) | 63.25% |
| (D) | 63.75% |

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| 27. | What is 225% as a decimal? |
| (A) | 0.00225 |
| (B) | 0.225 |
| (C) | 2.25 |
| (D) | 22500 |

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| 28. | Which fraction is equal to 0.17% ? |
| (A) | $$\frac{17}{10}$$ |
| (B) | $$\frac{17}{100}$$ |
| (C) | $$\frac{17}{1000}$$ |
| (D) | $$\frac{17}{10000}$$ |

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| 29. | Over a ten year period the price of gas increased from $0.60 to $1.20. What is the percent increase? |
| (A) | 50% |
| (B) | 60% |
| (C) | 100% |
| (D) | 200% |

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| 30. | The regular price of a t-shirt is $20.00. It is discounted by 30%. What is the sale price? |
| (A) | $17.00 |
| (B) | $14.00 |
| (C) | $6.00 |
| (D) | $3.00 |

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| 31. | What is the ratio of to to total shapes below?  |
| (A) | 3:4:6 |
| (B) | 3:13:4 |
| (C) | 6:4:13 |
| (D) | 6:4:3 |

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| 32. | In a class, there are 7 girls for every 5 boys. If there are 24 students in the class, how many are boys? |
| (A) | 5 |
| (B) | 10 |
| (C) | 12 |
| (D) | 14 |

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| 33. | Solve: $5+2x=-7$  |
| (A) | $$x=-6$$ |
| (B) | $$x=-1$$ |
| (C) | $$x=1$$ |
| (D) | $$x=6$$ |

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| 34. What is the value of $x$ if $\frac{x}{3}-2=-5$ ? |
|  | (A) | $$-9$$ |
|  | (B) | $$-3$$ |
|  | (C) | $$+3$$ |
|  | (D) | $$+9$$ |

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| 35. | Expand: $3(x-5)$ |
| (A) | $$x-2$$ |
| (B) | $$x-15$$ |
| (C) | $$3x-5$$ |
| (D) | $$3x-15$$ |

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| 36. | What is the missing value in the table?

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| **x** | **y** |
| $$-2$$ | $$-7$$ |
| $$-1$$ | $$-4$$ |
| 0 | $$-1$$ |
| 1 |  |
| 2 | 5 |

 |
| (A) | 1 |
| (B) | 2 |
| (C) | 3 |
| (D) | 4 |

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| 37. | Marc receives $10.00 per week as allowance and an extra $2.00 per chore (*c*). Which represents the total amount of money (*t*) that Marc receives each week? |
| (A) | $$c=2t+10$$ |
| (B) | $c=10t+2$  |
| (C) | $t=2c+10$  |
| (D) | $$t=10c+2$$ |

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| 38. | Describe the relation between the total cost of a pizza (C) and the number of toppings (t).  |
| (A) | As the number of toppings increases by 1, the total cost decreases by 2. |
| (B) | As the number of toppings increases by 1, the total cost decreases by 1. |
| (C) | As the number of toppings increases by 1, the total cost increases by 2. |
| (D) | As the number of toppings increases by 1, the total cost increases by 1. |

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| 39. | What is the probability of getting heads when you flip a $1 coin and landing on M with the spinner below?  |
| (A) | $$\frac{1}{2}$$ |
| (B) | $$\frac{1}{4}$$ |
| (C) | $$\frac{1}{6}$$ |
| (D) | $$\frac{1}{8}$$ |

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| 40. | On Pi Day students have a choice of one food item and one drink from the list below. What is the probability, to the nearest percent, that a student will order a bagel and milk?

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| FOOD | DRINK |
| Pizza | Milk |
| Bagel | Juice |
| Hamburger | Water |
| Cheeseburger |  |

 |
| (A) | 8% |
| (B) | 12% |
| (C) | 25% |
| (D) | 33% |

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| 41. | What type of graph shows change over time? |
| (A) | Bar graph |
| (B) | Circle graph |
| (C) | Line graph |
| (D) | Pictograph |

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| 42. | Which view is represented by the people in this sign? http://www.transportation.alberta.ca/images/31d.jpg |
| (A) | Front |
| (B) | Back |
| (C) | Side |
| (D) | Top |

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| 43. | What is the front view after this object is rotated 90° clockwise about the axis shown?  |
| (A) |  |
| (B) |  |
| (C) |  |
| (D) |  |

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| 44. | In the tessellation below which shape is a reflection of the shaded shape? |
| (A) | A |
| (B) | B |
| (C) | C |
| (D) | D |

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| 45. | Which shape will tessellate? |
| (A) |  |
| (B) |  |
| (C) |  |
| (D) |  |

**Constructed Response: Calculator Permitted.**

Answers to be written on this paper in the space provided. Show all workings.

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| 46. | The size of a TV screen is described by the length of its diagonal. If the 50-inch flat screen TV shown below has a width of 30 inches, what is the length?  | [3 points] |

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| 47. | The rectangular community swimming pool is 10*m* by 7*m* by 3*m* and it must be filled so that the surface of the water is 0.2 *m* lower than the ledge of the pool. If one truck load of water holds $50 m^{3}$ of water, how many truck loads will need to be delivered to fill the pool? | [4 points] |

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| 48. | Andrea’s cake has a diameter of 24 *cm* and a height of 10*cm*. Calculate how many $cm^{2}$ of chocolate icing, to the nearest tenth, she needs to cover the sides and top of the cake.  | [3 points] |

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| 49. | Peter has $380 in the bank. He wants to purchase an iPad mini that costs $349.99 before taxes. Does he have enough money? **Note**: HST is 13%If so, how much will he have left over? If not, how much extra money does he need?  | [3 points] |

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| 50. | Which is the better buy?3 cans of soda for $2.37 at Store A or 4 cans of soda for $3.08 at Store B. | [3 points] |

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| 51. | Grade 8 students are ordering class t-shirts. The company charges a base rate of $20 plus $6 per t-shirt. An equation for this relation is $C=6t+20$ where *C* is the total cost in dollars and $t$ is the number of t-shirts. | [4 points] |
|  a) Complete the table of  values.   |  b) Graph the relation. Label the axes. |

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| 52. | 1. Solve algebraically: $-2\left(x+4\right)=-18$
2. Verify the solution.
 | [3 points] |

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| 53. | Explain how the data displayed in the graph is misleading. | [2 points] |

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| 54. | Draw and label the **top, front, left** and **right** views of the given object. | [4 points] |
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|  | End of Grade 8 Common Mathematics Assessment.Have a safe and happy summer! |  |