1. Simplify: \(3x - 7 + 5x + 8\)
   A) \(-5x + 15\)  
   B) \(2x + 1\)  
   C) \(8x - 15\)  
   D) \(8x + 1\)

2. Simplify: \(m + m + 3m + 4\)
   A) \(3m + 4\)  
   B) \(5m - 4\)  
   C) \(5m + 4\)  
   D) \(2m + 3m + 4\)

3. Evaluate: \((-2) \times (5) \times (-6)\)
   A) \(-30\)  
   B) \(-60\)  
   C) \(30\)  
   D) \(60\)

4. Evaluate: \(\left(-\frac{3}{4}\right) \div \left(\frac{1}{4}\right)\)
   A) \(-\frac{3}{4}\)  
   B) \(-3\)  
   C) \(\frac{12}{4}\)  
   D) \(-\frac{3}{16}\)

5. Evaluate: \(\frac{2}{3} - \frac{1}{6}\)
   A) \(\frac{1}{2}\)  
   B) \(-\frac{1}{2}\)  
   C) \(-\frac{1}{3}\)  
   D) \(\frac{1}{6}\)

6. Evaluate: \(\frac{2}{3} + \frac{7}{4} \times \frac{-8}{14}\)
   A) \(-\frac{1}{3}\)  
   B) \(-\frac{54}{56}\)  
   C) \(-\frac{54}{53}\)  
   D) \(\frac{1}{3}\)

7. Evaluate: \(4^3 - 2^3\)
   A) \(8\)  
   B) \(-8\)  
   C) \(72\)  
   D) \(56\)

8. Determine the value of \(x\) in the proportion: \(3 : 5 = x : 15\)
   A) \(5\)  
   B) \(9\)  
   C) \(6\)  
   D) \(3\)

9. Determine the value of \(x\) that satisfies the equation: \(4x = 20\)
   A) \(5\)  
   B) \(4\)  
   C) \(6\)  
   D) \(20\)

10. Evaluate: \(3^2 - 4 \times 2\)
    A) \(-1\)  
    B) \(4\)  
    C) \(-2\)  
    D) \(1\)
11. Evaluate: $3 + 12 \div 3$

A) 7  B) 5  C) 6  D) 12

12. Last year there were 1940 students at Fletcher’s Meadow Secondary School. This year there are 15% less students than last year. How many students are at Fletcher’s Meadow this year?

A) 2231  B) 1649  C) 1925  D) 1807

13. The value of $-3^2$ is

A) 9  B) 6  C) -9  D) -6

14. Which of these is equal to $y^3$?

A) $y + y + y$  B) $y + 2y$  C) $(y)(2y)$  D) $(y)(y)(y)$

15. The table represents a linear relationship between $x$ and $y$. What is the missing number in the table?

<table>
<thead>
<tr>
<th>$x$</th>
<th>$y$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td></td>
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<tr>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

A) 2  B) 4  C) 6  D) 8

16. Sajeeva combines 5 litres of red paint, 2 litres of blue paint and 2 litres of yellow paint. What is the ratio of red paint to total paint?

A) 5:2  B) 9:4  C) 5:4  D) 5:9

17. The temperature outside is $-5^\circ C$ on Monday. Overnight it drops by $3^\circ C$. Between 9am and noon the next day it rises $2^\circ C$. What is the temperature on Tuesday at noon?

A) $-6^\circ C$  B) $0^\circ C$  C) $-4^\circ C$  D) $-10^\circ C$

18. The opposite angle theorem (OAT) states that:

A) Adjacent Angles are equal  
B) The sum of opposite angles is $180^\circ$  
C) The sum of opposite angles is $360^\circ$  
D) Opposite angles are equal

19. Find the value of the expression $-3k - 4k^2 + 4h - 7$ if $k = -3$ and $h = 4$

A) 18  B) -18  C) 54  D) 42

20. Evaluate $5 - 3(2-6)^3$

A) 128  B) -187  C) -128  D) 197
## Multiple Choice Answers:

1) ____  2) ____  3) ____  4) ____  5) ____  6) ____  7) ____  8) ____  9) ____  10) ____  
11) ___  12) ____  13) ____  14) ____  15) ____  16) ____  17) ____  18) ___  19) ___  20) ___

## Open Response: Show ALL work for full marks!

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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</table>
| 21. Two groups of tourists each have 60 people. 75% of the first group and \( \frac{2}{3} \) of the second group board a bus to travel to a museum. How many more people from the first group boarded the bus? (4) | Find the volume of a cylinder with height 25cm and radius 5cm. (4)  
Hint: \( V = \pi r^2 h \) |
| 22. A rectangle’s length is 4 times bigger than its width. If the width of the rectangle is 3.5cm. What is the perimeter and area of the rectangle? (4) | 24. You want to purchase a new Computer. The computer costs $449 plus $129 for software. What is the total cost of your purchase including 13% HST? (4) |
| 25. Justin has 4 more marbles than Lee, and Cindy has 3 times as many marbles as Justin. If Lee has \( n \) marbles, write an expression that could be used to determine how many marbles Cindy has. (4) |  |