1. \(5,733 + 79\)

2. \(36 \times \frac{1}{3}\)

3. \(735 \times 42\)

4. \(26 \div 5 = \)

5. \(5 \times 9 = \)

6. \(255 \times 10 = \)

7. \(31 \times 1000 = \)

8. \(346 \times 6 = \)

9. \(\frac{3}{10} + \frac{6}{10} = \)

10. Give all the factors of 20.

11. What is \(\frac{6}{26}\) written in lowest terms?

12. \(\frac{5}{6} - \frac{1}{4} = \)

13. \(\frac{5}{9} \times \frac{7}{11} = \)
14. 38% written as a fraction = _______________________-

15. Find 50% of 150 students.
_______________________________

16. In lowest terms, 80% =

17. 0.23 + 0.51 =

18. 64.05 – 23.67 =

19. 64.15 × 10 =

20. 47.27 ÷ 10 =

21. 354.7 ÷ 1,000 =

22. Divide:
48.96 ÷ 8 =

23. 9.4 × 5.3 =

24. Change $\frac{1}{2}$ into a decimal
_______________________________

25. Find the values of 25 + $y$ over the domain {6, 9, 11, 15}.

26. What is the base in the expression $y^6$? ________________________.

27. If $m = 6$ and $n = 10$, then $3m – n^2 = _________ – _________.

28. Evaluate $4p + 5q + 2$ for $p = 3$ and $q = 4$. 
____________________________________________________________________
29. Circle the negative numbers in the following list:

\[ -20 \quad 95 \quad -7 \quad -16 \quad 13 \]

30. Which point in the figure below has a coordinate +1? ________________

![Number line with points labeled L, M, N, O, Q, P]

31. Find the coordinates of points \( A, \) \( C, \) and, \( F \) on the number line below.

\[ A: \quad \quad \quad \quad \quad \quad \quad C: \quad \quad \quad \quad \quad \quad \quad F: \quad \quad \quad \quad \quad \quad \quad \]

32. Complete using ",>", "<", or ",=".

(i) \( -4 \) _____ +14 (ii) +9 _____ -9

(iii) +20 _____ -6 (iv) +7 _____ -11

33. Complete using ",>", "<", or ",=".

(i) \( -4 \) _____ 0

(ii) -22 _____ 0

(iii) -1 _____ 0

34. Find the opposite of each of the following numbers:

(i) \( -5 \) ______________  (ii) 17 ______________

35. (i) The graph of the opposite of -6 on the number line below is _______.

(ii) The graph of the opposite of +4 on the number line below is _______.

![Number line with points labeled A, B, C, D, E]

36. (i) \( -(+17.3) = \) ______________

(ii) \( -(-0.01) = \) ______________
(iii) \[-\left(\frac{5}{3}\right)^3\] =

37. Is there a value of \(z\) that satisfies the absolute value equation \(|z| = -5\)? Explain.

38. If \(m = 3\) and \(n = -5\), then \(|m| \cdot |n| = \text{______________} \).
   If \(m = 3\) and \(n = -5\), then \(|m| \div |n| = \text{______________} \).

39. Draw the graph of \(|x| < 1\) on the number line below.

```
-5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5
```

40. Draw the graph of \(|x| \geq 3\) on the number line below:

```
-5 -4 -3 -2 -1 0 1 2 3 4 5
```

41. \(7 + (-24) = \)

42. \(-4 + 21 = \)

43. \(7.88 + 0 = \text{__________} \)

44. \(8.23 + 15.7 = \text{__________} \)

45. \(-7 + (-8) = \)

46. \(10 + (-10) = \)

47. Evaluate \(m - 2n + 7\) for \(m = -3\) and \(n = -7\).

48. Simplify \(-5q + 10 + 18q\).
49. \(0 - (-18) = \)

50. \(0 - 12 = \)

51. \(-26 - (-48) = \) 

52. (a) \(4 - (-5) = \)
(b) \(20 - (-12) = \)

53. (a) \(3 - 11 = \)
(b) \(23 - 33 = \)

54. \(18z - (10 - 10z) = \) 

55. Evaluate \((-x) - y\) for \(x = -3.7\) and \(y = -7\).

\[\ \]

\[\ \]

\[\ \]

56. \((-11)^4 = \) \(\) and \((11)^4 = \) 

57. \((-2m)(-n)(6) = \) 

58. \((-18)(-3) = \) 

59. \((-1)^{36} = \) 

60. Evaluate \(st\) for \(s = -3\) and \(t = 11\).

61. \(\frac{9}{10} + (-1) = \) 

MHS

SABIS® Proprietary
62. Evaluate \( \frac{b^2}{2ab-5} \) for \( a = -2 \) and \( b = 3 \).

63. \( \frac{9x - 8}{-2} \cdot \frac{-8}{10x} = \frac{(x \neq 0)}{\text{expression}} \)

64. Solve \( w + 13 = 21 \).

65. Solve \( 6v = -54 \).

66. Solve \( \frac{a}{6} = -\frac{1}{3} \).

67. Solve \( \frac{4}{7}y = -\frac{7}{4} \).

68. Solve \( 8p - 40 = 0 \).

69. Solve \( \frac{c}{3} - \frac{1}{6} = \frac{1}{2} \).

70. Solve \( \frac{1}{3}(-9s + 18) = 7 \).

71. Solve \( 5c - (-7 + 5c) = 8 \).

72. Solve \( \frac{1}{4}(16 - 20x) = -3(2x + 1) + 8 \).

73. Solve \( 20 + |x| = 10 \).

74. Solve \( -6|x| = -12 \).
75. Solve $-10y + 6 = 14$.

76. The sum of $z$ and twenty-three is: ________________________________

77. $w$ multiplied by seven is: ________________________________.

78. $u$ divided by nine is: ________________________________.

79. $z$ is an integer. The next integer greater than $z$ is: ____________________.

80. The integer preceding $x$ is: ________________________________.

81. Twice $x$ is: ________________________________.

82. $y$ increased by nineteen is ________________________________.

83. $t$ decreased by 81 is: ________________________________.

84. Fifteen times $b$ is: ________________________________.

85. The quotient of $v$ by 31 is: ________________________________

86. $w$ is an even integer. The next even integer greater than $w$ is: ____________________.

87. $f$ is an even integer. The even integer preceding $f$ is: ____________________.

88. Double $y$ is: ________________________________.

89. 18 more than $u$ is: ________________________________.
90. 15 less than \( z \) is: ________________________________.

91. The product of \( b \) and 21 is: ____________________.

92. \( t \) is an even integer. The next odd integer greater than \( t \) is: ____________________

93. The year is 1943. \( z \) years ago it was: ________________________________.

94. Six tenths of \( s \) is: ________________________________.

95. \( w \) is an even integer. The odd integer preceding \( w \) is: ____________________.

96. Laura is \( m \) years old now. How old will she be five years from now?

______________________________

97. The year is 1918. \( y \) years ago it was: ________________________________.

98. \( g \) incremented by 27 is: ________________________________.

99. \( x \) diminished by 17 is: ________________________________.

100. One seventh of \( s \) is: ________________________________.

101. Six tenths of \( s \) is: ________________________________.

102. George is \( z \) years old now. How old will he be 12 years later?

______________________________.

103. \( z \) minus 33 is: ________________________________.
104. The total of 15 and $u$ is: ______________________________.

105. $m$ subtracted from 28 is: ______________________________.

106. 8 cm taller than $p$ cm is: ____________________.

107. Naji is 8 years younger than Talal. If Talal is $\ell$ years old, how old is Naji?

108. Write an algebraic expression for:
$u$ is enlarged by a factor of 16: ____________________.

109. Write an algebraic expression for:
$y$ is reduced by a factor of 17: ____________________.

110. $x$ plus seventeen is: ____________________.

111. 42 added to $z$ is: ____________________.

112. The average of 28 and $m$ is: ____________________.

113. The product of $u$ and 23 is incremented by 7: ____________________.

114. 7 minus five sixths of $w$ is: ____________________.

115. Four times the total of $n$ and 39 is: ____________________.

116. One eighth the sum of a number and 28 is: ____________________

117. Four times a number is divided by 26: ____________________.

118. The algebraic sentence for "19 added to $x$ is 26" is: ____________________.

119. A number incremented by 18 is –10. The number is: ____________________.
120. 8 less than five ninths of a number is 32. The number is ________________.

121. The perimeter of a rectangle is 56 cm. If the length of the rectangle is 3 cm more than the width, what are the dimensions of the rectangle?
Length ________________
Width ________________

122. Simplify.
a- \(2^7 \cdot 2^2\)

b- \((-3)^8 (-3)^2\)

123. Given \(m \neq 0\), then \(m^3 \cdot m^{15}\) = ______________________

124. Simplify \(4z(-3z^3)\), where \(z \neq 0\).

125. Given \(m \neq 0\), then
\((-4m^6)(3m^8)\) = ________________
\((-m^7)(-3m^4)\) = ________________

126. Simplify the expressions below, given \(m \neq 0\) and \(n \neq 0\).
a. \((-3m^4n^5)(4m^3)\)
b. \(6mn^4(-9m^5)\)
127. Simplify.

a. \((2^2)^3\)

b. \((4^2)^3\)

128. Given \(m \neq 0\), simplify \((m^6)^3\).

129. Given \(m \neq 0\), simplify \([(-m)^3]^7\).

130. Simplify \((-m^7)^3\), where \(m \neq 0\).

131. Given \(m \neq 0\), then \((-m^4)^7 = \) ________________________.

132. Given \(m \neq 0\), then \([(-m)^6]^2 = \) ________________________

133. Given \(m \neq 0\), then \((-m^4)^6 = \) ________________________

134. Simplify the expressions below, given \(m \neq 0\).

a. \((4m^3)^3\)

b. \((-2m^5)^2\)

135. Simplify the expressions below, given \(m \neq 0\) and \(n \neq 0\).
a. \((2m^2n^3)(3m^3n^2)^2\)

b. \((-m^3n^4)(-m^5n^6)^4\)

136. \(-5(3x + 4) = \) ____________________

137. \(3x(4 - 7x) = \) ____________________

138. \(-6xy(5x - 2) = \) ____________________

139. \(7(3x - 8y) = \) ____________________

140. \((-9x)(-6x + y) = \) ____________________

141. \(2xy(-8x - 11y) = \) ____________________

142. \(7(2x^2 - 3x + 3) = \) ____________________

143. \(3xy(-4x^2 - 2x + 67) = \) ____________________

144. \((-5)(3x^2 - 9xy - 4y^2) = \) ____________________

145. \(-xy(-10x^2 - 17xy + y^2) = \) ____________________

146. \((3x - 1)(2x + 3) = \) ____________________

147. \((2x + 3y)(-4x + 3) = \) ____________________

148. \((3x - 1)(-x^2 + 2x + 4) = \) ____________________

149. \((x - 3y)(-2x^2 - 3xy + y^2) = \) ____________________
150. \((x^2 - xy + 3y^2)(-x^2 - 2xy + 3y^2) = \) ________________

151. \((x + 4)^2 = \) ________________ ; \((x + 2)^2 = \) ________________

152. \((3x + 4)^2 = \) ________________

153. \((-2x - 5y)^2 = \) ________________

154. \((x - 5)(x + 5) = \) ________________

155. \((x + 4)(x - 4) = \) ________________

156. \((4x - 3)(4x + 3) = \) ________________

157. \((5x - 1)(5x + 1) = \) ________________

158. Which of the expressions below does not have a value of 1?

\[
50^0 \quad (-399)^0 \quad \left(\frac{100}{2}\right)^0 \quad 0^0 \quad (-10,000)^0 \quad (8^{10,875})^0
\]

159. \(\frac{x^5}{x^2} = \) ________________ \(\frac{x^8}{x^4} = \) ________________

160. \(\frac{x^{10}}{x^5} = \) ________________ \(\frac{x^{12}}{x^5} = \) ________________

161. Given \(k \neq 0\), simplify \(\frac{k^{13}}{k^{15}}\).

162. Simplify.

(a) \(\frac{x^6}{x^7}\)

(b) \(\frac{x^{10}}{x^{15}}\)
163. \( \frac{x^2 y^3}{x^2 y^6} = \) \( \frac{2m^5 n^2}{-5m^4 n^3} = \)

164. True or false?
A straight line can be represented by
a) a dashed straight stroke of a pencil without arrowheads
b) a solid straight stroke of a pencil with arrowheads at each end
c) a dashed straight stroke of a pencil with arrowheads at each end
d) a solid straight stroke of a pencil with one arrowhead only (at one of the extremities)
e) a solid straight stroke of a pencil joining two points without arrowheads

165. Write the symbol that denotes the segment from point \( A \) to point \( B \).

166. Name the endpoint(s) of \( MS \).

167. A segment has _______________ end points.

168. Name the vertex of
I- \( \angle SIA \)

II- \( \angle B \)

III- \( \angle ISA \)

169. State the definition of a right angle.

170. State the definition of an acute angle.

171. Define an obtuse angle.

172. In the figure below, \( m\angle a = 53^\circ \).
173. In the figure below, find $m\angle y$ and justify your answer.

174. Triangle $PQR$, is an isosceles triangle with $\overline{PQ} \cong \overline{RQ}$.
   a) Name the leg(s).
   b) Name the vertex angle.
   c) Name the base(s).

175. An equilateral triangle is _________________________________.
    (obtuse / equiangular / right)

176. Find the sum of the measures of the interior angles of a polygon with 10 sides.

177.
The measure of the angle marked $x$ is

178. Find the sum of the measures of the interior angles of a convex polygon with 7 sides.

179. Find the value of $y$ in the square $SAME$ shown below.

![Square SAME with sides labeled 3y + 2 and 5y - 2]

180. In rectangle $ABCD$, if $m \angle C = (x + 40)^\circ$, what is the value of $x$?

181. Find the area of a circle of radius 6 cm.

![Parallelogram with sides labeled a, b, h, and area formula]

182. If $a = 3$, $b = 10$ and $h = 2$, then the area of the parallelogram is ________________.

183. What is the area of a triangle with height 5 cm and base 6 cm.

184. Find the volume of the right circular cylinder with a height 7 cm and a base of radius 2 cm.

185. Find the volume of a cone of base radius 7 cm and height 24 cm.

186. Find the volume of a box with length 2 cm, width 4 cm, and height 1 cm.
187. What is the volume of the cube shown below?

188. What is the volume of the cube shown below?