



MATHEMATICS SUMMARY TABLE

Grade 8

The summary table below may be used with the grade 8 mathematics Paper-Based Item Sampler or Online Tools Training (OTT). It provides an answer key, alignment to the Alaska standards, and depth of knowledge level for each question. Please note, there are two different answer keys for each grade level: one for the paper-based item samplers and one for the OTT.

Paper-Based Item Sampler - Part 1

Question #	Answer Key	Alignment with Standards	Depth of Knowledge
1	B	8.NS.A.1	1
2	C	8.EE.A.1	1
3	C	8.EE.B.5	2
4	4	8.NS.A.2	2
5	3	8.EE.A.2	1

Paper-Based Item Sampler - Part 2

Question #	Answer Key	Alignment with Standards	Depth of Knowledge
6	B	8.G.A.3	1
7	D	8.EE.C.8	2
8	A	8.SP.A.3	2
9	D	8.F.A.2	2
10	A	8.EE.C.7	1
11	C	8.G.A.1	2
12	C	8.F.A.3	2
13	B	8.G.A.2	2
14	B	8.SP.A.1	1
15	D	8.G.A.5	2

Question #	Answer Key	Alignment with Standards	Depth of Knowledge
16	A, C	8.F.B.5	1
17	A, B, C, E	8.F.A.1	1

OTT - Part 1

Question #	Answer Key	Alignment with Standards	Depth of Knowledge																
1	B	8.NS.A.1	1																
2	C	8.EE.A.1	1																
3	C	8.EE.B.5	2																
4	4	8.NS.A.2	2																
5	3	8.EE.A.2	1																
6	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>$x + 4$</th> <th>$5x + 2$</th> <th>$6x - 3$</th> </tr> </thead> <tbody> <tr> <td>$3x + 2(x + 1)$</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>$3 + (1 - x) + 2x$</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>$3(2x - 1)$</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>		$x + 4$	$5x + 2$	$6x - 3$	$3x + 2(x + 1)$	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	$3 + (1 - x) + 2x$	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	$3(2x - 1)$	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7.EE.A.1	2
	$x + 4$	$5x + 2$	$6x - 3$																
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$3(2x - 1)$	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
7	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>subtract 20 from x</p> <p>the sum of 20 and x</p> <p>20 less than x</p> <p>20% increase</p> <p>20% decrease</p> </td> <td style="width: 50%; vertical-align: top;"> <p>$-20x$</p> <p>$0.80x$</p> <p>$1.2x$</p> <p>$x - 20$</p> <p>$120 + x$</p> <p>$20 - x$</p> <p>$20 + x$</p> </td> </tr> </table>	<p>subtract 20 from x</p> <p>the sum of 20 and x</p> <p>20 less than x</p> <p>20% increase</p> <p>20% decrease</p>	<p>$-20x$</p> <p>$0.80x$</p> <p>$1.2x$</p> <p>$x - 20$</p> <p>$120 + x$</p> <p>$20 - x$</p> <p>$20 + x$</p>	7.EE.A.2	1														
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Question #	Answer Key	Alignment with Standards	Depth of Knowledge						
8	<table border="1"> <thead> <tr> <th>Negative</th> <th>Zero</th> <th>Positive</th> </tr> </thead> <tbody> <tr> <td>-4.65 -4 + -4</td> <td></td> <td>-(-2) -7 -3 + 6</td> </tr> </tbody> </table>	Negative	Zero	Positive	-4.65 -4 + -4		-(-2) -7 -3 + 6	7.NS.A.1	1
Negative	Zero	Positive							
-4.65 -4 + -4		-(-2) -7 -3 + 6							

OTT - Part 2

Question #	Answer Key	Alignment with Standards	Depth of Knowledge
9	B	8.G.A.3	1
10	D	8.EE.C.8	2
11	A	8.SP.A.3	2
12	D	8.F.A.2	2
13	A	8.EE.C.7	1
14	C	8.G.A.1	2
15	C	8.F.A.3	2
16	B	8.G.A.2	2
17	B	8.SP.A.1	1
18	D	8.G.A.5	2
19	A, C	8.F.B.5	1
20	A, B, C, E	8.F.A.1	1
21	18.1 (accept answers in the range $18 \leq$ [student response] ≤ 18.1)	8.G.C.9	2

Question #	Answer Key	Alignment with Standards	Depth of Knowledge
22	<p style="text-align: center;">Total Cost of Gym Membership</p>	8.EE.C.8	2
23	<p style="text-align: center;">Jeff's Coin Collection</p>	HS.F-IF.B.5	2