**Lesson 108—Final review**

**Basic Information**

**Grade** 7  
**Lesson type Reviewing previously learned material**  
**Total time**

**File Team**

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|  | Teacher |
| **$KE** | Knowledge Engineer |

**Characters**

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| Tutor | $Tutor |
| Strong student | $Strong |
| Weak student | $Weak |

**Animations:**

**Math Journal:**

**Collateral Learning:**

**Short Description**

# Stage 1: Mental math

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| **110. Together** |
| All of the numbers we know are called rational numbers. Today, we will continue to work with rational numbers. We must review the rules of operations on them, and use the properties of the operations when calculating. |
| $DESIGN |
| 0 submits 55 words |

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| **120. Together** |
| [1]1. Find the number opposite to the sum:а) 0.7+63b) 12+4.8c) 6.59+3d) 0.21+0.32 |
| $DESIGN |
| 11 submits 164 words |

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| **130. Together** |
| [1]2. Multiply:а) -0.1\*(-10)b) c) |
| $DESIGN |
| 5 submits 88 words |

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| **140. Together** |
| 3. There were some solutions to equations written on the board, but part of the writing got erased. What was written on the right side of the equation?а) 0.9х=… b) х÷(-3)=… c) -2.3х=… х= -0.3 х=0.36 х= -0.2 |
| $DESIGN |
| 10 submits 253 words |

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| **150. Together** |
| [2]4.-44\*216\*3-11\*(-7)68÷(-2)-39÷1348÷1-88÷(-11)[After 1 min, show the solved problems on the board.]Check whether you did the calculations correctly. Correct any mistakes you find. [to the student who did the assignment with a mistake] You were probably hurrying. It’s good that you checked the solution and corrected your mistake. Pay close attention to the signs of the numbers! |
| $DESIGN |
| 2 submits 145 words |

# Stage 2: Knowledge actualization

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| **Weak** | **Average or Strong** |
| **210. Together** | **215. Together** |
| Name the absolute values of these numbers. Whoever wants to answer - raise your hand!5> -10-10+5= -5-10-5= -15 | Same question as in 210. |
| $DESIGN | $DESIGN |
| 9 submits 311 words | 9 submits 311 words |

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| **Weak** | **Average or Strong** |
| **220. Together** | **225. Together** |
| -10\*5= -50What is the product equal to?You’ve just done everything right!-10÷5= -2 | Same question as in 220. |
| $DESIGN | $DESIGN |
| 10 submits 224 words | 10 submits 224 words |

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| **230. Together** |
| 2. Compare the sumsа) 6+7 and 7+6b) -4+9 and 9+(-4)c) +(-1) and -1+() |
| $DESIGN |
| 2 submits 83 words |

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| **240. Together** |
| 3. Replace the squares with numbers that will make the equalities correct. 2743206985000а) + 811 = 811731520-762000b) 726 + = 01303020381000274320-762000c) + 543 + = 543 |
| $DESIGN |
| 6 submits 116 words |

# Stage 3: Solving problems

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| **310. Together** |
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| $DESIGN |
| 0 submits 7 words |

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| **Weak or Average** | **Strong** |
| **320. Together** | **325. Together** |
| 1. Evaluate the expression | Same question as in 320. |
| $DESIGN | $DESIGN |
| 5 submits 84 words | 5 submits 84 words |

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| **Weak or Average** | **Strong** |
| **330. Together** | **335. Together** |
| Look at how many operations there were, and we’ve done them all! [to a student who did the assignment with no mistakes:]Your careful work has made me very happy! [to the student who made a mistake:] This assignment turned out to be difficult for you. You will have to pay closer attention when you work with numbers that have opposite signs (with negative numbers)! | Same question as in 330. |
| $DESIGN | $DESIGN |
| 3 submits 143 words | 3 submits 143 words |

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| **Weak or Average** | **Strong** |
| **340. Together** | **345. Together** |
| 2. Find the number opposite to the value of the expression | Same question as in 340. |
| $DESIGN | $DESIGN |
| 7 submits 199 words | 7 submits 199 words |

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| **Weak or Average** | **Strong** |
| **350. Together** | **355. Together** |
| You’ve shown that you know the rules for operations with positive and negative numbers, and can apply them. | Same question as in 350. |
| $DESIGN | $DESIGN |
| 3 submits 121 words | 3 submits 121 words |

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| **360. Together** |
| 3. Calculate, using the most convenient method:а) b) |
| $DESIGN |
| 11 submits 256 words |

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| **370. Together** |
| b) |
| $DESIGN |
| 4 submits 265 words |

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| **380. Together** |
| 4. Calculate, using a more rational method:а) b) -4\*(-1.3)\*(-5)\*(-2)Very good! You did everything right. |
| $DESIGN |
| 12 submits 322 words |

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| **Weak** | **Average or Strong** |
| **390. Together** | **395. Together** |
| b) -4\*(-1.3)\*(-5)\*(-2) | Same question as in 390. |
| $DESIGN | $DESIGN |
| 8 submits 138 words | 8 submits 138 words |

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| **Weak or Average** | **Strong** |
| **400. Together** | **405. Together** |
| 5. Fill in the table:х3-60 | Same question as in 400. |
| $DESIGN | $DESIGN |
| 7 submits 158 words | 7 submits 158 words |

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| **410. Together** |
| 6. Evaluate the expression 3а-15в for а= -7, в= -3;а= and в=0.8. |
| $DESIGN |
| 9 submits 203 words |

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| **Weak or Average** | **Strong** |
| **420. Together** | **425. Together** |
| If а= , в= 0.8, then 3а-15в== | Same question as in 420. |
| $DESIGN | $DESIGN |
| 4 submits 97 words | 4 submits 97 words |

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| **Weak or Average** | **Strong** |
| **430. Together** | **435. Together** |
|  | Same question as in 430. |
| $DESIGN | $DESIGN |
| 1 submits 49 words | 1 submits 49 words |

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| **440. Together** |
| 7. Solve the word problem.A manuscript contains 42 pages. One typist can type up this manuscript in 2 h, and another one will take 3 times more time. How many more pages will the first typist type up in 1 h than the second? |
| $DESIGN |
| 12 submits 229 words |

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| **450. Together** |
| Excellent! You’ve succeeded at solving this problem! |
| $DESIGN |
| 20 submits 324 words |

# Stage 4: Lesson recap

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| **510. Together** |
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| $DESIGN |
| 5 submits 140 words |

# Stage 5: Assigning homework.

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| **610. Together** |
| “Diligence is the key to success in mathematics.” And to receive this “key”, that is, to succeed, you have to work hard at school and at home. 1. Evaluate the expression:2. Calculate, using the most convenient method:а) 5.37-9.29-5.37b) c) d) 3. Solve the word problem.A worker manufactured 720 machine parts in 8 h.To manufacture the same amount of parts, his apprentice needs 4 more h. How many more machine parts will a worker manufacture in 1 hour than his apprentice? |
| $DESIGN |
| 0 submits 28 words |

# Homework evaluation criteria:

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| **710. Together** |
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| $DESIGN |
| 0 submits 0 words |