

# Primary Grades Instructional Data (10 point option)

## Subject: Mathematics

### Goal: Computation



Database last updated with additional data statements on 2/15/2008

141 - 150	Skills and Concepts to Enhance (73% probability*)	151 - 160	Skills and Concepts to Develop (50% probability*)	161 - 170	Skills and Concepts to Introduce (27% probability*)
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#### Addition

<p><b>144</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; manipulatives and numerals shown; real-world objects; horizontal representation)</p> <p><b>144</b> Determines the sum (1-digit addends; sum <math>\leq 5</math>; manipulatives and numerals shown; real-world objects; vertical representation)</p> <p><b>146</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; manipulatives and numerals shown; real-world objects; vertical representation)</p> <p><b>147</b> Determines the sum (1-digit addend + 0; sum <math>\leq 10</math>; numerals shown; vertical representation)</p> <p><b>147</b> Determines the sum (1-digit addend + 0; sum <math>\leq 5</math>; numerals shown; horizontal representation)</p> <p><b>147</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; manipulatives and numerals shown; dominoes; horizontal representation)</p> <p><b>148</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; manipulatives and numerals shown; square chips; horizontal representation)</p> <p><b>148</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; numerals shown; horizontal representation)</p> <p><b>148</b> Solves an addition story problem (1-digit addends; sum <math>\leq 10</math>; 2-digit sum)</p> <p><b>150</b> Solves an addition story problem (1-digit addends; sum <math>\leq 5</math>)</p>	<p><b>151</b> Determines the sum (1-digit addends; sum <math>\leq 5</math>; manipulatives and numerals shown; real-world objects; horizontal representation)</p> <p><b>151</b> Solves an addition story problem (1-digit addends; sum <math>\leq 20</math>; manipulatives shown; real-world objects)</p> <p><b>152</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; manipulatives and numerals shown; number line; horizontal representation)</p> <p><b>152</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; numerals shown; horizontal representation)</p> <p><b>152</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; numerals shown; vertical representation)</p> <p><b>152</b> Determines the sum (1-digit addends; sum <math>\leq 5</math> numerals shown; horizontal representation)</p> <p><b>152</b> Solves an addition story problem (1-digit addends; sum <math>\leq 5</math>)</p> <p><b>153</b> Determines the sum (1-digit addend + 0; sum <math>\leq 10</math>; numerals shown; horizontal representation)</p> <p><b>154</b> Solves an addition story problem (1-digit addends; sum <math>\leq 5</math>; extraneous information; two different representations of manipulatives shown and numerals shown; real-world objects)</p> <p><b>156</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; expression shown; horizontal representation)</p>	<p><b>161</b> Determines the sum (1-digit addends; sum <math>\leq 10</math>; using numerals; horizontal representation)</p> <p><b>161</b> Determines the sum (three 1-digit addends; sum <math>\leq 10</math>; numerals shown; horizontal representation)</p> <p><b>161</b> Solves an addition story problem (1-digit addends; sum <math>\leq 5</math>; extraneous information; two different representations of manipulatives shown and numerals shown; real-world objects)</p> <p><b>161</b> Solves an addition story problem (three 1-digit addends; sum <math>\leq 10</math>; manipulatives and numerals shown; real-world objects)</p> <p><b>162</b> Solves an addition story problem (1-digit addends; sum <math>\leq 10</math>)</p> <p><b>164</b> Solves an addition story problem (three 1- or 2-digit addends <math>\leq 10</math>; sum <math>\leq 20</math>)</p> <p><b>165</b> Determines the sum (1- and 2-digit addends <math>\leq 20</math>; sum <math>\leq 100</math>; with regrouping; numerals shown; horizontal representation)</p> <p><b>165</b> Determines the sum (1-digit addends; sum <math>\leq 20</math>; numerals shown; vertical representation)</p> <p><b>167</b> Determines the sum (1-digit addends; sum <math>\leq 20</math>; numerals shown; horizontal representation)</p> <p><b>167</b> Determines the sum (three 1-digit addends; sum <math>\leq 10</math>; numerals shown; vertical representation)</p>
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\* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills.

141 - 150 Skills and Concepts to Enhance (73% probability*)	151 - 160 Skills and Concepts to Develop (50% probability*)	161 - 170 Skills and Concepts to Introduce (27% probability*)
	<p><b>157</b> Determines the sum (1-digit addends; sum <math>\leq 20</math>; manipulatives and numerals shown; 10-frames; horizontal representation)</p> <p><b>157</b> Solves an addition story problem (1-digit addends; sum <math>\leq 5</math>; manipulatives for one addend shown; real-world objects)</p> <p><b>158</b> Solves an addition story problem (three 1-digit addends; sum <math>\leq 10</math>; manipulatives and numerals shown; real-world objects)</p> <p><b>159</b> Determines the sum (3-digit addends that are multiples of 100; sum <math>\leq 1000</math>; no regrouping; numerals shown; horizontal representation)</p> <p><b>160</b> Determines the sum (1-digit addends; sum <math>\leq 20</math>; numerals shown; horizontal representation)</p>	<p><b>168</b> Determines the sum (three 1-digit addends; sum <math>\leq 20</math>; numerals shown; horizontal representation)</p> <p><b>169</b> Determines the sum (five 1-digit addends; sum <math>\leq 100</math> with regrouping; numerals shown; horizontal representation)</p> <p><b>169</b> Determines the value of a collection of coins (sum <math>\leq \\$1.00</math>; manipulatives shown; pennies, nickels, dimes; ¢ symbol shown)</p> <p><b>170</b> Determines the sum (2-digit addends; sum <math>\leq 100</math>; no regrouping; numerals shown; vertical representation)</p> <p><b>170</b> Solves an addition story problem (three 1-digit addends; sum <math>\leq 20</math>)</p>

### Readiness for Multiplication and Division

<p><b>147</b> Solves a multiplication story problem (1-digit factors; product <math>\leq 20</math>; repeated addition; doubles shown with manipulatives; real-world objects)</p>	<p><b>156</b> Determines the product (1-digit factors; product <math>\leq 5</math>; numerals shown, vertical representation)</p> <p><b>157</b> Solves a division story problem (1-digit dividend and divisor; dividend <math>\leq 10</math>; equal sharing; manipulatives given; numerals shown; real-world objects)</p>	<p><b>161</b> Solves a division story problem (1-digit dividend and divisor; dividend <math>\leq 10</math>; equal sharing; manipulatives given; numerals shown; real-world objects)</p> <p><b>161</b> Solves a multiplication story problem (1-digit factors; product <math>\leq 20</math>; repeated addition; manipulatives shown; real-world objects)</p> <p><b>167</b> Solves a division story problem (2-digit dividend and divisor; dividend <math>\leq 10</math>; equal sharing; manipulatives given; numerals shown; real-world objects)</p> <p><b>169</b> Solves a multiplication story problem (1-digit factors; product <math>\leq 5</math>; repeated addition; manipulatives given; numerals shown)</p> <p><b>170</b> Solves a division story problem (1-digit dividend and divisor; dividend <math>\leq 5</math>; equal sharing; manipulatives given; numerals shown; real-world objects)</p>
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### Subtraction

\* At the range mid-point, this is the probability students would correctly answer items measuring these concepts and skills.

141 - 150 Skills and Concepts to Enhance (73% probability*)	151 - 160 Skills and Concepts to Develop (50% probability*)	161 - 170 Skills and Concepts to Introduce (27% probability*)
<p>145 Solves a subtraction story problem (1-digit minuend and subtrahend; minuend <math>\leq 5</math>; manipulatives shown; real-world objects)</p>	<p>151 Determines the difference (1-digit minuend and subtrahend; minuend <math>\leq 5</math>; manipulatives and numerals shown; real-world objects; horizontal representation)</p>	<p>164 Determines the difference (2-digit minuend and 1-digit subtrahend; minuend <math>\leq 10</math>; numerals shown; horizontal representation)</p>
<p>150 Solves a subtraction story problem (1-digit minuend and subtrahend; minuend <math>\leq 5</math>; manipulatives shown; domino)</p>	<p>153 Determines the difference (1-digit minuend and subtrahend; minuend <math>\leq 5</math>; numerals given; vertical representation)</p>	<p>166 Determines the difference (1-digit minuend and subtrahend; minuend <math>\leq 10</math>; numerals shown; horizontal representation)</p>
	<p>153 Solves a subtraction story problem (1-digit minuend and subtrahend; minuend <math>\leq 10</math>; manipulatives shown; domino)</p>	<p>166 Determines the difference (1-digit minuend and subtrahend; minuend <math>\leq 10</math>; numerals shown; vertical representation)</p>
	<p>153 Solves a subtraction story problem (1-digit minuend and subtrahend; minuend <math>\leq 5</math>; manipulatives shown; real-world objects)</p>	<p>166 Determines the difference (1-digit minuend and subtrahend; minuend <math>\leq 5</math>; numerals shown; horizontal representation)</p>
	<p>154 Solves a subtraction story problem (1-digit minuend and subtrahend; minuend <math>\leq 10</math>)</p>	<p>167 Determines the difference (1-digit minuend and subtrahend; minuend <math>\leq 5</math>; numerals shown; vertical representation)</p>
	<p>155 Solves a subtraction story problem (1-digit minuend and subtrahend; minuend <math>\leq 5</math>)</p>	<p>167 Solves a subtraction story problem (1-digit minuend and subtrahend; minuend <math>\leq 10</math>; multiple steps; manipulatives and numerals shown; real-world objects)</p>
	<p>159 Solves a subtraction story problem (1-digit minuend and subtrahend; minuend <math>\leq 5</math>; multiple steps; manipulatives and numerals shown; real-world objects)</p>	<p>168 Determines the difference (1-digit minuend and subtrahend; minuend <math>\leq 10</math>; using manipulatives; number line; horizontal representation)</p>
	<p>160 Determines the difference (2-digit minuend and 1-digit subtrahend; minuend <math>\leq 10</math>; numerals shown; horizontal representation)</p>	<p>168 Determines the difference (2-digit minuend and 1-digit subtrahend; minuend <math>\leq 100</math>; no regrouping; numerals shown; horizontal representation)</p>

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