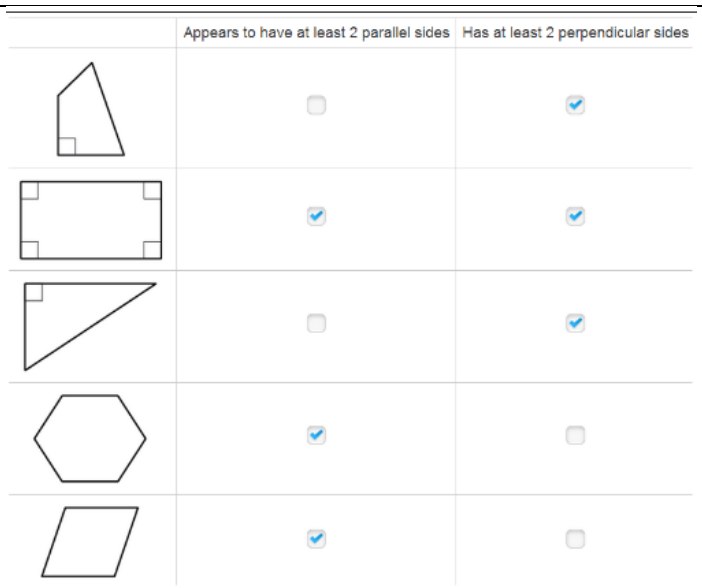
Grade 4 Mathematics Computer-Based Practice Test Answer Key

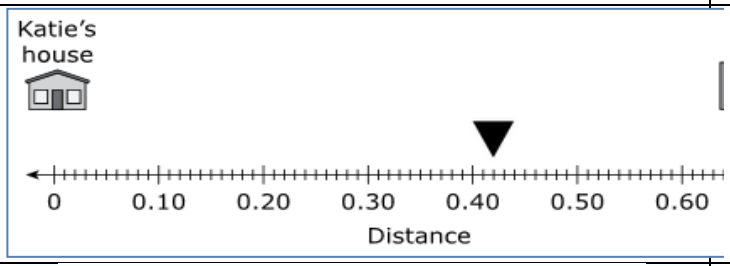
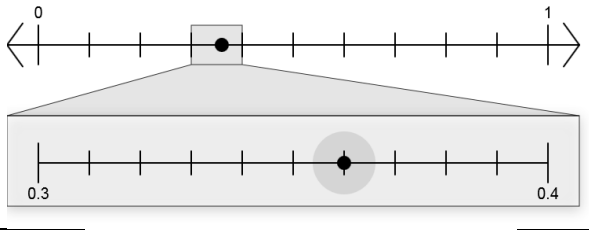
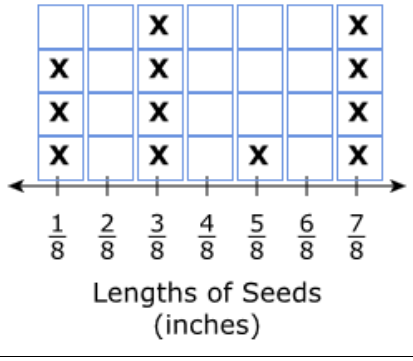
The following pages include the answer key for all machine-scored items, followed by the rubrics for the hand-scored items. – The rubrics show sample student responses. Other valid methods for solving the problem can earn full credit unless a specific method is required by the item. In items where the scores are awarded for full and partial credit, if students make a computation error, they can still earn points for reasoning or modeling.

Session 1

Item Number	Item Type	Answer Key	Number of Points	Standard
1	SA		1	4.NF.A.01
2	SA	40, 120	1	4.MD.C.06
3	SR	A, B, D	1	4.OA.B.04
4	SA	Part A: y + 32 + 44 = 105 y, 32, and 44 can be in any order Part B: 29	2	4.MD.C.07

5	SR			4.G.A.02
6	SA	15		4.MD.A.03
7	SR	C		4.NF.C.05

Session 2

Item Number	Item Type	Answer Key	Number of Points	Standard
1	SR	0.4 meter > 0.04 meter 0.3 meter < 0.5 meter 0.65 meter > 0.61 meter	1	4.NF.C.07
2	SA	$4 \times 32 = d$ or any equivalent equation	1	4.OA.A.02
3	SA	6370	1	4.NBT.B.05
4	SA		1	4.MD.A.02
5	SA		1	4.NF.C.06
6	SA		1	4.MD.A.04
7	CR	See rubric.	4	4.OA.A.03

Scoring Rubric for Grade 4 Practice Test;

Session 2, Item #7:

Score	Description
4	The student response demonstrates an exemplary understanding of the Operations and Algebraic Thinking concepts involved in solving multi-step word problems posed with whole numbers and having whole-number answers using the four operations, and representing these problems using equations with a letter standing for the unknown quantity. The student solves real-world problems using multiple operations and money.
3	The student response demonstrates a good understanding of the Operations and Algebraic Thinking concepts involved in solving multi-step word problems posed with whole numbers and having whole-number answers using the four operations, and representing these problems using equations with a letter standing for the unknown quantity. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result the response merits 3 points.
2	The student response demonstrates a fair understanding of the Operations and Algebraic Thinking concepts involved in solving multi-step word problems posed with whole numbers and having whole-number answers using the four operations, and representing these problems using equations with a letter standing for the unknown quantity. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 2 points.
1	The student response demonstrates a minimal understanding of the Operations and Algebraic Thinking concepts involved in solving multi-step word problems posed with whole numbers and having whole-number answers using the four operations, and representing these problems using equations with a letter standing for the unknown quantity.
0	The student response contains insufficient evidence of an understanding of the Operations and Algebraic Thinking concepts involved in solving multi-step word problems posed with whole numbers and having whole-number answers using the four operations, and representing these problems using equations with a letter standing for the unknown quantity to merit any points.

Sample Response:

a. ($)28, $(4\times3)+(2\times8)=12+16=28$
b. ($)6, $20-(2\times3+8)=6$
c. $3+(2\times8)+11=m$ or equivalent
d. ($)30, $3+(2\times8)+11=m$
$3+16+11=m,\ 30=m$