



GRADE 3 MATH: WILD TURKEYS RUBRIC

Grade 3 Math: Wild Turkeys Rubric

Grades 3 & 4: Progress-Monitoring Focus: Multiplication & Division; Fractions

Gr. 3 & 4 Math CCSS Criteria/Clusters	Novice	Apprentice	Practitioner	Expert
<p>Number & Operations in Base Ten</p> <p style="text-align: center;">And</p> <p>Number & Operations - Fractions</p> <p style="text-align: center;">And</p> <p>Operations & Algebraic Thinking</p>	<p>Applies flawed strategies (e.g., attempts to form groups when multiplying, but does not use equal sized groups)</p> <p>Selects the incorrect operation to perform or major inaccuracies in computation lead to an incorrect solution</p> <p>Still demonstrates limited knowledge of place value or number sense (e.g., difficulty estimating, representing part-whole relationships; cannot determine the reasonableness of an answer; does not see relationship between multiplication-division)</p> <p>A correct answer may be stated, but is not supported by student work or explanations</p>	<p>Some parts of problem correct and those parts are supported by student work</p> <p>Uses additive reasoning to solve or interpret most problems</p> <p>May include limited/partial explanations</p> <p>Uses visual models (number line, area, sets) to represent parts of a whole but stops short of applying concepts in problem solving</p>	<p><i>Expresses whole numbers as fractions</i> 3.NF-3</p> <p><i>Expresses fractions and equivalent fractions (gr 3-4) and decimal-fraction equivalents (gr 4); explains/ illustrates why they are equivalent (e.g., using visual models- number line, area, sets; compare to benchmarks)</i> 3.NF-1, 2, 3 4.NF-1, 2, 5, 6, 7</p> <p><i>Uses addition, subtraction, and multiplication to solve problems with whole numbers, fractions (gr 3-4) and mixed numbers (gr 4)</i> 3.NF-1, 2, 3 4.NF-3, 4</p> <p><i>Uses 4 operations in solving problems (e.g., using equations, explaining patterns using whole numbers, following a rule)</i> 3.OA-3, 4, 5, 6, 7, 8, 9 3.NBT-2, 3 4.OA-2, 3, 5</p> <p><i>Solves multi-step problems</i> 3.OA-8 4.OA-3</p> <p><i>Minor computation flaws do not affect outcome</i></p>	<p>All parts of problem correct, precise, and supported by student work</p> <p>Extends understanding of equivalence of fractions by identifying proper and improper fractions</p> <p>Interprets meaning of the products when multiplying (gr 3-4) and remainder s when dividing (gr 4)</p> <p>Uses a variety of representations (e.g., concrete models, diagrams, equations), strategies, and operations to solve problems or represent solutions in multiple ways</p>

NOTE: Anchor papers will illustrate how descriptors for each performance level are evidenced at each grade.



GRADE 3 MATH: WILD TURKEYS

Grade 3 Math: Wild Turkeys

Name Student 1 D

Wild Turkeys

Colin and Ryan see four wild turkeys on Sunday. Colin and Ryan see eight wild turkeys on Monday. Colin and Ryan see twelve wild turkeys on Tuesday. Colin and Ryan see sixteen wild turkeys on Wednesday. If this pattern continues how many wild turkeys do Colin and Ryan see on the seventh day? How many wild turkeys do Colin and Ryan see in all? Show all your mathematical thinking.

I have to find how many wild turkey Colin and Ryan see on the 7th day and how many wild turkey Colin and Ryan see in all

I will make a table

Days	turkeys	turkeys total
Sunday	4	4
Monday	8	12
Tuesday	12	24
Wednesday	16	40
Thursday	20	60
Friday	24	84
Saturday	28	112

↑
a week

you multiply by 4 in your head then you add going down for total turkeys

Answer

Colin and Ryan sees 28 wild turkey on the 7th day.

They see 112 turkeys in all

$$\begin{array}{r} 84 \\ + 28 \\ \hline 112 \end{array}$$

Student 1D, page 2

I see patterns
days + 1 } multiples
turkeys + 4 }

I see a rule
 $4 \cdot D = T$

Key
D day
T turkeys

Prove rule

$4 \cdot 2 = 8$ matches table

$4 \cdot 6 = 24$

$4 \cdot 3 = 12$

$4 \cdot 10 = 40$

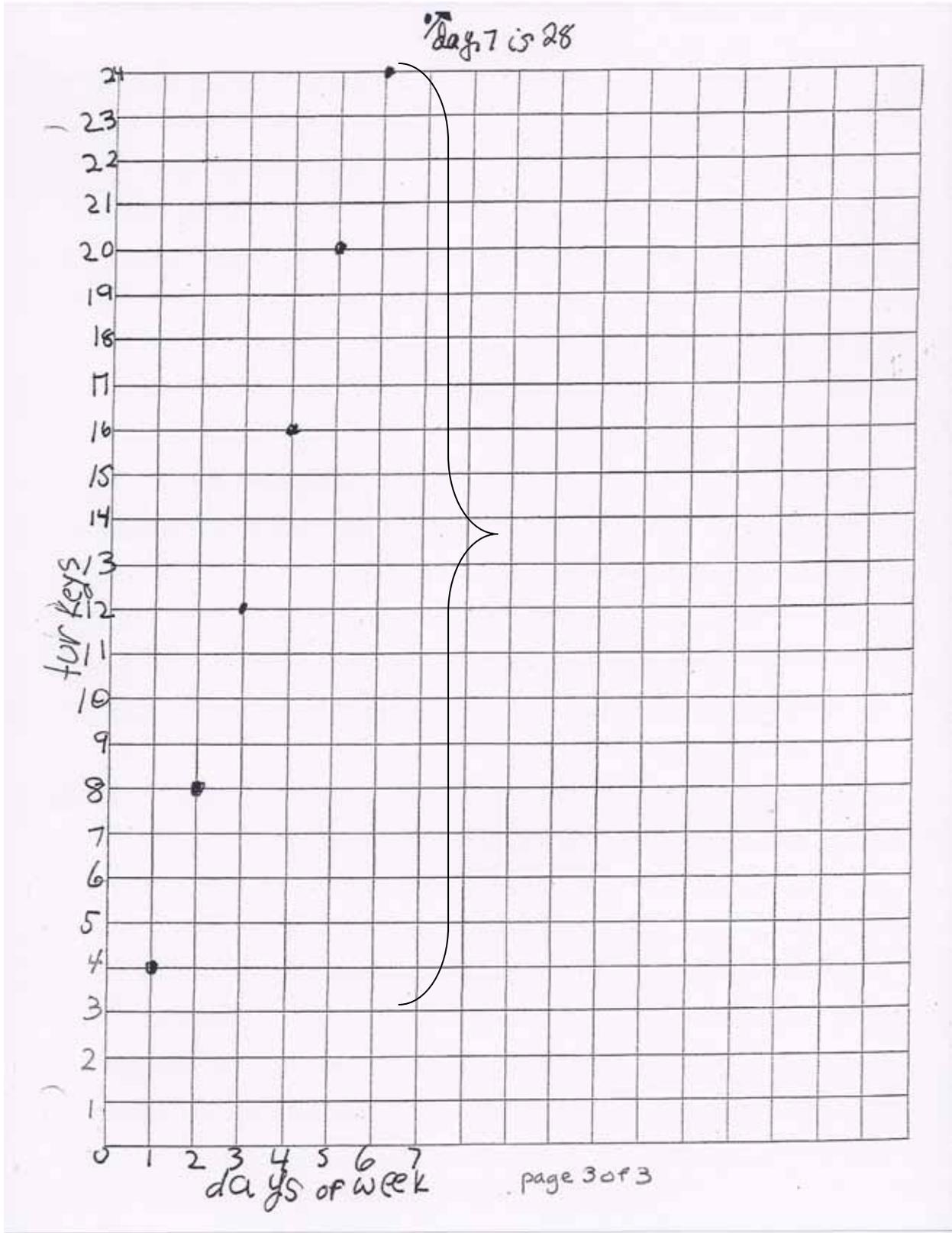
$4 \cdot 50 = 200$

my rule works

I can do a graph

Grade 3 Math: Wild Turkeys

Student 1D, page 3



Grade 3 Math: Wild Turkeys

Name Student 1C

Wild Turkeys

Colin and Ryan see four wild turkeys on Sunday. Colin and Ryan see eight wild turkeys on Monday. Colin and Ryan see twelve wild turkeys on Tuesday. Colin and Ryan see sixteen wild turkeys on Wednesday. If this pattern continues how many wild turkeys do Colin and Ryan see on the seventh day? How many wild turkeys do Colin and Ryan see in all? Show all your mathematical thinking.

I have to find how many turkeys Colin and Ryan see on the 7th day, how many wild turkeys Colin and Ryan see in all. I will make a table.

4
21
4

$$\begin{array}{r} 12 \\ +12 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \\ +24 \\ \hline 48 \end{array}$$

$$\begin{array}{r} 84 \\ + 28 \\ \hline 112 \\ 4 \times 6 = 24 \\ 4 \times 7 = 28 \end{array}$$

$$\begin{array}{r} 112 \\ \times 32 \\ \hline 224 \\ + 336 \\ \hline 3584 \end{array}$$

day	turkeys	total turkeys
Sunday	4	4
Monday	8	12
Tuesday	12	24
Wednesday	16	40
Thursday	20	60
Friday	24	84
Saturday	28	112

ANSWER is
Colin and Ryan see 28 turkeys on the 7th day. There is 112 turkeys in all.

If Colin and Ryan saw 4 more turkeys on the 8th day they see 32 turkeys for total of 144 turkeys. 144 is 12 dozen turkeys.

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Grade 3 Math: Wild Turkeys

Name Student 2C

Wild Turkeys

Colin and Ryan see four wild turkeys on Sunday. Colin and Ryan see eight wild turkeys on Monday. Colin and Ryan see twelve wild turkeys on Tuesday. Colin and Ryan see sixteen wild turkeys on Wednesday. If this pattern continues how many wild turkeys do Colin and Ryan see on the seventh day? How many wild turkeys do Colin and Ryan see in all? Show all your mathematical thinking.

I will make a table to find out the pattern and multiply to the 7th day and find the total turkeys.

	Turkeys	Days	Days of the week	running total turkeys
$4 \times 1 = 4$	4	1	Sunday	4
$4 \times 2 = 8$	8	2	Monday	12
$4 \times 3 = 12$	12	3	Tuesday	24
$4 \times 4 = 16$	16	4	Wednesday	40
$4 \times 5 = 20$	20	5	Thursday	60
$4 \times 6 = 24$	24	6	Friday	84
$4 \times 7 = 28$	28	7	Saturday	112

$$\begin{array}{r} 24 \\ 16 \\ \hline 40 \end{array}$$

$$\begin{array}{r} 84 \\ 28 \\ \hline 112 \end{array}$$

Answer
28 turkeys seen on the 7th day

You multiply like
input 1 day
output 4 turkeys
input 2 days
output 8 turkeys

Answer
112 turkeys are seen in all

Patterns are multiples of 4 so all are even numbers
7 days is 1 week

Grade 3 Math: Wild Turkeys

Name Student 1 B

Wild Turkeys

Colin and Ryan see four wild turkeys on Sunday. Colin and Ryan see eight wild turkeys on Monday. Colin and Ryan see twelve wild turkeys on Tuesday. Colin and Ryan see sixteen wild turkeys on Wednesday. If this pattern continues how many wild turkeys do Colin and Ryan see on the seventh day? How many wild turkeys do Colin and Ryan see in all? Show all your mathematical thinking.

I have to find how many wild turkeys Colin and Ryan see on the 7th day and how many wild turkeys they see in all. I will make a table.

	day	turkey	total
1	Sun	4	4
2	Mon	8	12
3	Tue	12	24
4	Wed	16	40
5	Thurs	20	60
6	Fri	24	84
7	Sat.	26	110

Answer

Colin and Ryan See
26 Wild turkeys
Colin and Ryan see
110 in all turkeys

Grade 3 Math: Wild Turkeys

Name Student 2 B

Wild Turkeys

Colin and Ryan see four wild turkeys on Sunday. Colin and Ryan see eight wild turkeys on Monday. Colin and Ryan see twelve wild turkeys on Tuesday. Colin and Ryan see sixteen wild turkeys on Wednesday. If this pattern continues how many wild turkeys do Colin and Ryan see on the seventh day? How many wild turkeys do Colin and Ryan see in all? Show all your mathematical thinking.

how much did they see each day

Key
+ 4

Sun.	4
Mon.	8
Tues.	12
Wed.	16
Thurs.	20
Fri.	24
Sat.	28

Answer
They saw 116 turkeys in all

Answer
on the 7th day they will see 28 turkeys

I added 4 to each number

I found the answer because I saw that they were adding four to each new day. That's a pattern.

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Grade 3 Math: Wild Turkeys

Name Student 1 A

Wild Turkeys

Colin and Ryan see four wild turkeys on Sunday. Colin and Ryan see eight wild turkeys on Monday. Colin and Ryan see twelve wild turkeys on Tuesday. Colin and Ryan see sixteen wild turkeys on Wednesday. If this pattern continues how many wild turkeys do Colin and Ryan see on the seventh day? How many wild turkeys do Colin and Ryan see in all? Show all your mathematical thinking.

Wild turkeys	
4	$4 \times 1 = 4$
8	$4 \times 2 = 8$
12	$4 \times 3 = 12$
16	$4 \times 4 = 16$
20	
24	
28	

Ryan and Colin
see 28 wild
turkeys