Important Concepts . . .

Preview Review

Mathematics Grade 7 TEACHER KEY

W2 - Quiz

V6-10

Important Concepts of Grade 7 Mathematics

Materials Required

Math Set
Calculator

No Textbook Required

This is a stand-alone course.

Mathematics Grade 7
Version 6
Preview/Review W2 - Quiz
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Preview/Review Concepts for Grade Seven Mathematics

Teacher Key

W2 – Quiz:

Introductory Information for Teachers

Preview/Review courses are aimed mainly at students who have completed the regular course but who need to review some of the material before beginning the next grade. Other students may find Preview/Review courses useful in preparing for the new concepts they will study in their next grade.

No Preview/Review course is intended to replace the regular course because each covers only what the writers have decided are the top 15 concepts from the Program of Studies for that course.

Preview/Review materials are intended for use by teachers and students in one-subject and one-grade classrooms. This Preview/Review course contains fifteen lessons in three sections. Each section has five lessons. A short quiz is provided at the end of each section to test student knowledge of the material studied. In a classroom the course will likely be completed in three weeks.

This Preview/Review course is written to be stand-alone. There is no textbook required.

Value 51 W2 – Quiz

1. Danny started with $250 in his bank account added another $20 each week.

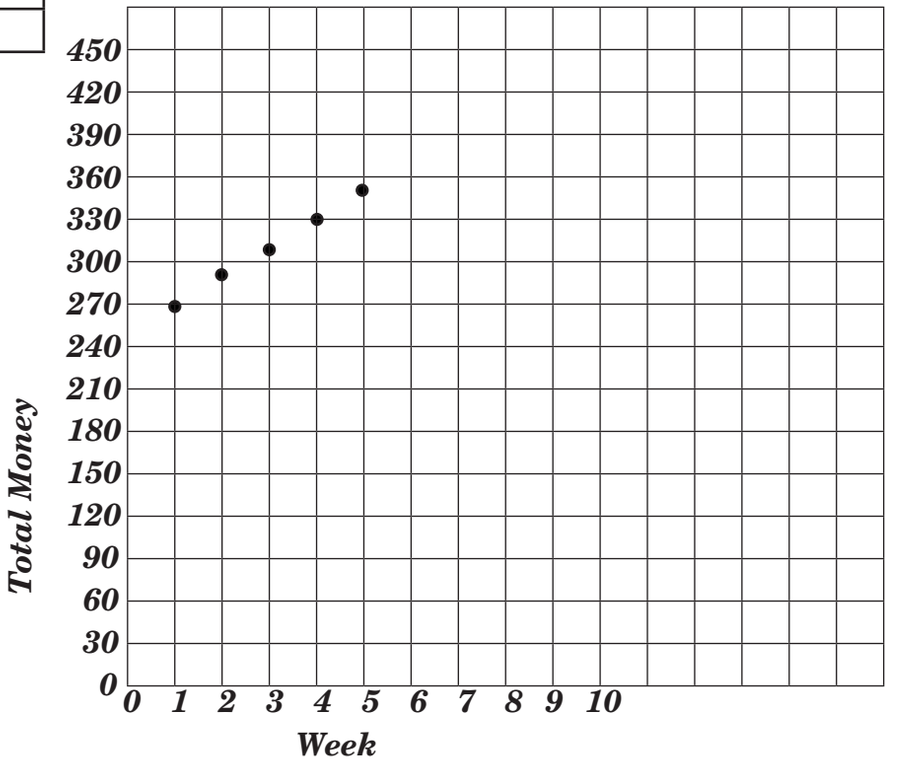
(2) a. What is the pattern relation that would describe the amount of money in the bank for n weeks?

Money = 20n + 250

(10) b. Complete a table of values for this relation, and graph the relation.

Week (n)	Money ($)
1	***270***
2	***290***
3	***310***
4	***330***
5	***350***

5 mark for table and 5 marks for graph



(2) c. After 25 weeks, how much money would Danny have in the bank?

M(25) = 20(25) + 250
= 750

He would have $750 in the bank

2. Frances helps his grandparents at their store. He gets paid $5 an hour and $10 bonus anytime he works more than 2 hours a day.

(2) a. Write an expression to represent his earnings if he works more than two hours a day.

5h + 10

(2) b. How much does Frances make if he works for 4 hours?

5(4) + 10 = $30

(2) c. 1.5 hours?

5(1.5) = $7.50

(4) 3. Evaluate the expression

a. **3a + 6b** for a = 2 and b = 6.

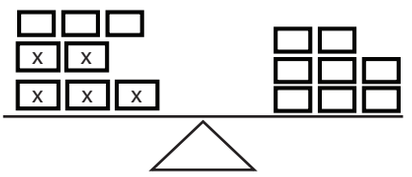
3(2) + 6(6)
= 6 + 36
= 42

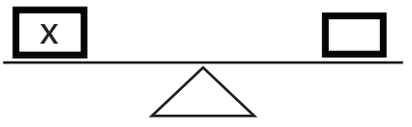
b. **2(a - 3) + b** for b = 5 and a = 7.

2(7 -3) + 5
= 2(4) + 5
= 8 + 5 = 13

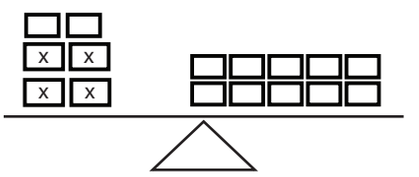
(4) 4. Model the equation and the solution using a balance scale model

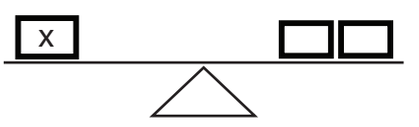
a. 5x + 3 = 8





b. 4x + 2 = 10

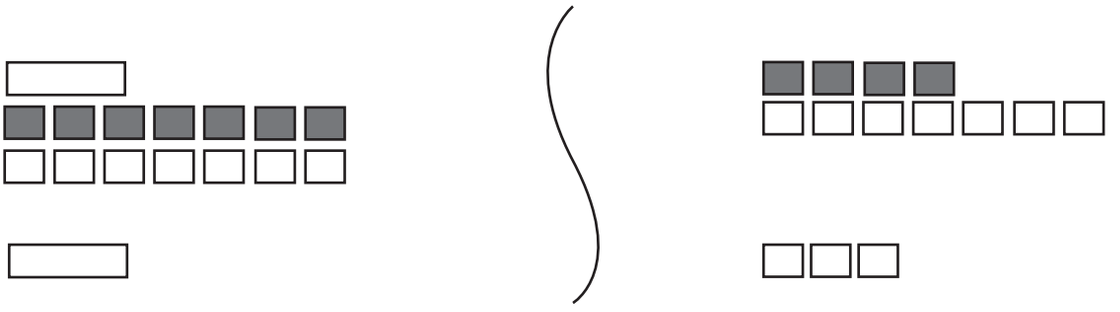




(3) 5. Model **and** solve the equation using Algebra tiles

$x - 7 = -4$

Left side: Right side



(2) 6. Solve and verify, showing all steps.

$8n + 2 = 26$

8n +2 -2 = 26 -2
8n = 24
$\frac{8n}{8} = \frac{24}{8}$
n = 3

Verify:
Left side: 8(3) + 2 = 24 + 2 = 26
Right side: 26

7. Find the mean of 56, 83, 172, 44, 67, and 47

(2) a. including the outlier

(56 + 83 + 172 + 44 + 67 + 47) ÷ 6 = 78.2

(2) b. without the outlier

(56 + 83 + 44 + 67 + 47) ÷ 5 = 59.4

(2) 8. Find the mode of 85, 77, 79, 84, 85, 77, 90, 91, 93, 97, 85

77, 77, 79, 84, 85, 85, 85, 90, 91, 93, 97

Modes: 85

(2) 9. In a science project, 12 plant heights were recorded at: 12cm, 10cm, 14 cm, 17 cm, 13cm, 14cm, 18cm, 17cm, 16cm, 22cm, 19cm, and 20cm. If one of the plants died so it was not included in the project. If the new median is 16cm which plant height could have been eliminated?

10, 12, 13, 14, 14, 16, 17, 17, 18, 19, 20, 22

Any value above 16 could have been eliminated

10. A box has 3 red blocks, 7 yellow blocks, and 5 green blocks. If the blocks are replaced each time, what is:

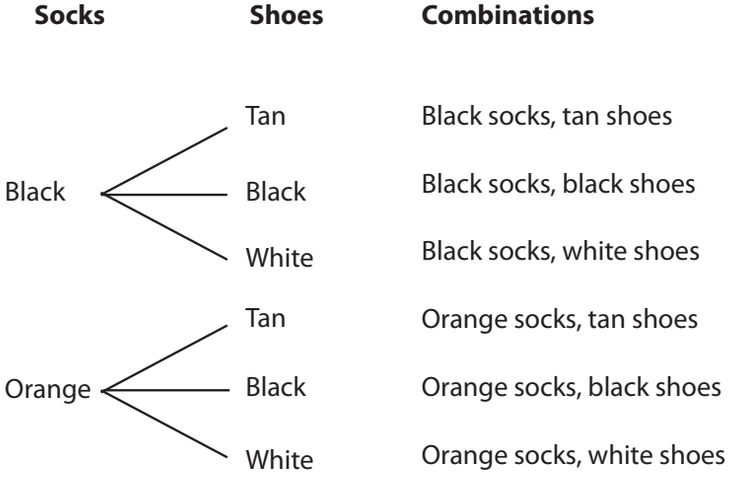
(2) a. P(red) = ***3/15 = 1/5 or 20%***

(2) b. P(red or yellow) = ***10/15 = 2/3 or 67%***

(2) c. P(red and green) = ***3/15 × 5/15 = 1/5 × 1/3 = 1/15 or 7%***

(1) d. P(pink) = ***0, impossible event***

(3) 11. Darcy has two different colours of pairs of socks: one black and one orange. He has three pairs of shoes: one tan, one black, and one white. Use a tree diagram to show all the different combinations he can make.



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