

## FEATURE ARTICLE

### *Are We Asking Enough of our Students?*

#### THEN (1932)

*These problems were expected to be mastered by grade 3 students during the last week of May in 1932. They are taken from "The Opportunity Plan: A series of lesson outlines and exercises, based on the Prescribed Course of Study for the Province of Ontario, and designed to meet the needs of the individual pupil", Edited by W. E. Hume.*

- (a)  $60 = ? \text{ doz.}; \frac{1}{2} \text{ doz.} = ?; \frac{1}{4} \text{ doz.} = ?; 1 \frac{1}{2} \text{ doz.} = ?; 2 \frac{1}{2} \text{ doz.} = ?.$   
(b)  $1 \text{ lb.} = ? \text{ oz.}; 5 \text{ lb.} = ? \text{ oz.}; \frac{1}{4} \text{ lb.} = ? \text{ oz.}; 2 \frac{1}{2} \text{ lb.} = ? \text{ oz.};$   
 $1 \frac{1}{4} \text{ lb.} = ? \text{ oz.}$   
(c)  $2 \text{ pts.} = ? \text{ qts.}; 12 \text{ qts.} = ? \text{ gals.}; 5 \text{ qts.} = ? \text{ pts.}; 3 \text{ gals.} = ? \text{ qts.};$   
 $18 \text{ qts.} = ? \text{ gals.}$
- 16  $\overline{)52734}$       17  $\overline{)73640}$       14  $\overline{)29509}$       21  $\overline{)38906}$
- Round steak costs 20¢ per pound. Jim bought 1  $\frac{1}{2}$  lb. How much did he pay? What was his change out of \$1.00? What coins would he receive?
- Divide the numbers in Question 2 by 29, 47, 58, 64.
- Subtract and add.

30654	70600	600006	30000
<u>  8279</u>	<u> 38964</u>	<u>   874</u>	<u>  8685</u>
- Divide the numbers in Question 2 by 73, 87, 94, and 38.
- Multiply.

305	487	354	689	807
<u>  654</u>	<u>  209</u>	<u>  870</u>	<u>  406</u>	<u>  609</u>
- Read and write in figures: DCCLXIV; CCCLXXXV; twenty thousand and twenty; ninety-three thousand three hundred and thirty-three; two hundred thousand and two hundred and twenty-two.

9. (a) Find the cost of 3 quarts of milk at 7¢ per pint.  
 (b) Find the cost of 1 ½ doz. pears at 40 ¢ per dozen.  
 (c) If I pay 78¢ for a 3 lb. pail of honey, how much per pound does it cost?  
 (d) A 14 lb. bag of flour costs 98¢. How much is that per lb.?  
 (e) On banking day our teacher had the following: 3 one dollar bills; 3 fifty cent pieces; 7 quarters; 12 ten cent pieces; 8 five cent pieces and 17 coppers. How much money did she have?
10. (a) The grocer counted out twenty-four eggs. How much would I pay at 32¢ per dozen?  
 (b) I saw that the scales showed five and one-half pounds as the butcher weighed a chicken. If the chicken was 32¢ per pound, how much did my mother pay?  
 (c) Mr. A's gasoline tank on his car holds fourteen gallons. How much would it cost to fill it at 29¢ per gallon? At the price of gasoline near your home?  
 (d) Jack's father bought him a bicycle for \$25.00. After using it for two years his chum Jim bought it for \$12.75. How much did the use of the bicycle cost Jack for the two years?  
 (e) A grocer bought a fifteen pound basket of blueberries for \$2.40. How much did he pay for one pound? If he sold them for 20¢ per pound how much did he get for the basket? How much did he gain by selling them?

## NOW (2006)

*These problems are part of Ontario's EQAO test for grade 3 students in May 2006. Because so many of the test items included space-eating graphs, maps, and drawings of various kinds, we have reproduced only the word problems. The entire test can be viewed by clicking [here](#).*

1. Which of the following could be the temperature on a warm, sunny day?      -23 °C      5°C      25°C      100°C

2. Britta uses estimation to solve the following problem.

$$\begin{array}{r} 82 \\ 28 \\ +91 \\ \hline \end{array}$$

Which is closest to the sum?

$$80 + 20 + 80$$

$$80 + 29 + 90$$

$$80 + 30 + 90$$

$$80 + 30 + 100$$

3. Which of the following is another way to show  $4 \times 6$ ?

$$4 + 4 + 4 + 4$$

$$6 + 6 + 6 + 6$$

$$4 \times 4 \times 4 \times 4$$

$$6 \times 6 \times 6 \times 6$$

5. Each face on Jaime's number cube has a different number:

1, 2, 3, 4, 5, 6

He rolls the number cube 1 time. What are the chances the number cube lands with a 2 or a 5 facing up?

1 out of 5

2 out of 4

2 out of 6

4 out of 6

6. Kevin is making a number pattern by repeating the first three numbers he writes in the same order. Which of the following could be Kevin's pattern?

2, 4, 6, 2, 4, 6, 2, ...

2, 4, 6, 8, 10, 12, 14, ...

2, 4, 2, 4, 2, 4, 2, ...

2, 2, 4, 4, 6, 6, 2, ...

7. Chloe wants to solve the number sentence shown.

$$23 - 6 = \square$$

Which of the following number sentences could Chloe use to check her answer?

$$26 - 3 = 23$$

$$23 + 6 = 29$$

$$17 - 6 = 11$$

$$17 + 6 = 23$$

16. Which addition sentence is related to  $16 - 5 = 11$ ?

$$16 + 5 = 21$$

$$5 + 11 = 16$$

$$6 + 5 = 11$$

$$11 + 16 = 27$$

17. Allan has 600 cards in his collection. Billy has 387 fewer cards in his collection than Allan. How many cards does Billy have in his collection?

987

387

323

213

22. Which number can be placed in the box to make this number sentence true?

$$183 + \square = 200$$

393

383

27

17

23. David must wait 1 year before he is old enough to join the baseball team. Which of the following is closest to the total number of days in 1 year?

356

360

365

376

24. The number pattern below shows how Judy is counting aloud by 25s. She starts at 150 and counts by 25s.

150, 175, 200, 225, 250

What will Judy's 7<sup>th</sup> number be?

250

275

300

325

25. There are 28 students in Daniel's class. The list shows how all the students get to school each morning.

3 ride in cars

4 walk

? ride in buses.

What is the total number of students who ride in buses to get to school?

7

21

24

28

*There are interesting differences between the two sets of questions. The most obvious, of course, is that the 1932 questions are arithmetically much more advanced. In addition, the 1932 questions tend to be about family and adult matters, while the 2006 questions are mostly peer-oriented.*