

# What Did the Baby Buzzard Say When It Saw an Orange in the Nest?



Solve each problem below. Find your answer in the answer column and notice the letter next to it. Write this letter in each box that contains the number of that problem.

- (G) 22
- (D) 60
- (M) 72
- (I) 96
- (H) 15
- (S) 74
- (T) 35
- (L) 320
- (N) -36
- (R) 12
- (E) -21
- (F) 13
- (K) 11
- (C) 342
- (O) -3
- (A) 76

- 1 Two more than 5 times a number is 77. Find the number. \_\_\_\_\_ m
- 2 Five more than one third of a number is -2. Find the number. \_\_\_\_\_
- 3 Nine less than one fourth of a number is 6. Find the number. \_\_\_\_\_ yr
- 4 Sixteen increased by twice a number is -56. Find the number. \_\_\_\_\_ kg
- 5 Twelve decreased by 8 times a number is 36. Find the number. \_\_\_\_\_
- 6 One eighth of a number, increased by 20, is 32. Find the number. \_\_\_\_\_ cal
- 7 Twenty-five decreased by one fifth of a number is 18. Find the number. \_\_\_\_\_ cm
- 8 Nine times a number, diminished by 4, is 95. Find the number. \_\_\_\_\_
- 9 The length of a rectangle is 50 meters. This is 6 meters more than twice the width. Find the width. \_\_\_\_\_
- 10 Grandpa Schmidt is 75 years old. This is 9 years less than seven times the age of Junior Schmidt. How old is Junior? \_\_\_\_\_
- 11 Bill's weight is 48 kilograms. This is 10 kilograms more than one half of his father's weight. What is his father's weight? \_\_\_\_\_
- 12 A medium orange has 70 calories. This is 10 calories less than one fourth of the calories in a Sugar Krunchy. How many calories are in a Sugar Krunchy? \_\_\_\_\_
- 13 The length of a couch is 200 centimeters. This is 16 centimeters less than 3 times the width of a matching chair. How wide is the chair? \_\_\_\_\_

12	5	5	8	11	7	7	1	2	5	10	11	4	9	2	13	11	13	11	12	11	6	3
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# Why Did the Cow Keep Jumping Over the Barrel?

Translate each phrase below into an algebraic expression and find your answer in the corresponding answer column. Write the letter of that exercise in the box that contains the number of the answer.

- (E) 3 times a number
- (O) 3 more than a number
- (S) 3 decreased by a number
- (R) 3 less than a number
- (A) one third of a number
- (I) 8 more than 3 times a number
- (N) 8 less than 3 times a number

- (S) 5 times a number, increased by 8
- (A) 5 times the sum of a number and 8
- (H) 5 more than 8 times a number
- (O) 8 times the sum of a number and 5
- (C) twice the sum of 5 times a number and 8
- (T) 2 more than five eighths of a number
- (W) 8 times the sum of twice a number and 5

- (18)  $x + 3$
- (15)  $3x - 8$
- (19)  $x - 3$
- (12)  $3x + 8$
- (3)  $3x$
- (25)  $3 - x$
- (5)  $\frac{x}{3}$

- (T) 9 meters higher than altitude  $x$
- (F) 15 meters per second slower than speed  $x$
- (P)  $15^\circ\text{C}$  hotter than temperature  $x$
- (O) 9 meters shorter than twice length  $x$
- (C) 9 years older than twice age  $x$
- (H) \$9 cheaper than 4 times price  $x$
- (M) 9 centimeters less than three fourths of length  $x$

- (A) 7 less than 4 times a number
- (S) 7 decreased by 4 times a number
- (G) 9 less than twice a number
- (N) 9 decreased by twice a number
- (O) 9 less than half a number
- (I) 7 times a number, increased by 4
- (R) 7 times a number, increased by 4 times the number

- (22)  $8(x + 5)$
- (4)  $8(2x + 5)$
- (2)  $8x + 5$
- (13)  $2(5x + 8)$
- (6)  $5x + 8$
- (20)  $5(x + 8)$
- (11)  $\frac{5}{8}x + 2$

- (1)  $7 - 4x$
- (16)  $2x - 9$
- (14)  $7x + 4$
- (9)  $4x - 7$
- (8)  $7x + 4x$
- (24)  $9 - 2x$
- (27)  $\frac{x}{2} - 9$

- (7)  $x + 15$
- (28)  $x + 9$
- (26)  $4x - 9$
- (23)  $2x - 9$
- (10)  $2x + 9$
- (17)  $x - 15$
- (21)  $\frac{3}{4}x - 9$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
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1. There is \$4.10 in the till in nickels and quarters. There are 4 more nickels than quarters. How many are there of each?

Solution: Let  $q$  be the number of quarters.

$$5(q+4)+25q=410$$

$$5q+20+25q=410$$

$$30q=390$$

$$q=13$$

$\therefore$  there are 13 quarters and 17 nickels.

Coin	Number	Value (cents)
Quarters	$q$	$25q$
Nickels	$q+4$	$5(q+4)$
Total		410

2. There are 7 fewer nickels than dimes in the cash register. The total is \$3.10. How many are there of each?
3. The petty cash drawer had 3 times as many quarters as dimes in it and the total was \$11.05. How many of each?
4. There were 7 more nickels than quarters in the cash drawer. The total was \$4.55. How many of each?
5. The tickets were \$10 and \$15 at the school concert. The take (total sold) was \$6750 and they sold 3 times as many \$10 tickets as \$15 tickets. How many of each did they sell?
6. The bank teller has \$1455 in \$5's and \$20's. She has 16 more \$5's than \$20's. How many of each?

## MPM 1D0 Word Problems with Age

1. Right now, Tessa is 3 times Miranda's age and in 4 years she'll be only twice Miranda's age. How old are they now?

Solution: Let  $m$  be Miranda's age now.

	Now	Then
Miranda	$m$	$M+4$
Tessa	$3m$	$3m+4$ $2(m+4)$

$3m+4=2(m+4)$   
 $3m+4=2m+8$   
 $m=4$

$\therefore$  Miranda is 4 years old and Tessa is 12 years old right now.

2. Jeff is half of Pete's age and in two years the sum of their ages will be 31. How old are they now?
3. Priya is twice as old as Jen. The sum of their ages 3 years ago was 45. How old are they now?
4. Will is twice as old as Bob. Three years ago, Bob's age was two fifths of Will's age. How old are they now?
5. In five years, Kate will be twice Gilda's age. The sum of their ages now is 35. How old will they be in five years?
6. Eric is four years older than Joe. In 22 years, Eric will be twice as old as Joe is now. How old are they?
7. Laurie is now half Bill's age. Six years ago he was three times her age. How old are they now?
8. Angie is now the same age as John was six years ago. 16 years ago he was four times her age. How old are they now?
9. Brad is four years older than Nick. In five years the sum of their ages will be 34. How old will they be then?
10. Six years ago, Chris was twice as old as Sue was. Now the sum of their ages is 33. How old are they now?

## Linear Word Problems

1. Translate each phrase below into an algebraic expression.
 

a) 3 times a number _____	b) 3 more than a number _____
c) 3 decreased by a number _____	d) 3 less than a number _____
e) one third of a number _____	f) 8 more than 3 times a number _____
g) 9 less than half a number _____	h) 5 times the sum of a number and 8 _____
i) 7 times a number, increased by the number _____	j) twice the sum of 5 times a number and 8 _____
2. An airplane travels eight times as fast as a car. The difference in their speeds is 420 km/h. Find how fast each vehicle is traveling.
3. Find three consecutive numbers with a sum of 141.
4. In a cross-country marathon, Jack and Jill ran a total of 73 km. Jill ran 5 km farther than Jack. Find how far each person ran.
5. Jeanne is twice as old as Michael. The sum of their ages 3 years ago was 45 years. Find their ages now.
6. One half of a number added to two thirds of the number is 21. Find the number.
7. Jason is three times as old as Mark. The sum of their ages is 20 years. How old is Mark?
8. Two thirds of a number is  $3\frac{1}{2}$  more than three eighths of the number. Find the number.
9. The combined mass of a dog and a cat is 21 kg. The dog is two-and-one-half times as heavy as the cat. What are their masses?
10. Roger has some dimes and quarters with a total value of \$2.50. If he has three more quarters than dimes, how many of each kind of coin does he have?
11. Will is twice as old as Jill. Three years ago, Jill's age was two fifths of Will's age then. How old is each of them now?
12. One number is seven times one-half of another number. The numbers differ by 35. What are the numbers?
13. Donna's average mark out of three tests was 84 out of 100. Her highest mark was one-and-one-quarter times her lowest mark. The middle mark was 81. What were Donna's marks on the three tests?

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The answers for questions 2-13, in no particular order, are:

60	39	5	8	34	46	15	49	34	18	76	18
14	17	6	47	81	480	12	5	48	9	95	