

1. Addition, multiplication, subtraction, division.

a. $1328 - 698$; *b.* $1351 + 672 + 1428$; *c.* $678 \cdot 37$; *d.* $5894 : 14$;

2. Subtract the product of 3 and 4 from 30.

Subtract the product of 3 and 5 from 40.

Subtract the product of 7 and 3 from 25.

Subtract the product of 4 and 5 from 50.

Subtract the product of 3 and 6 from 26.

Subtract 5 from the product of 5 and 8.

Subtract 2 from the product of 4 and 9.

Subtract 10 from the product of 3 and 7.

Subtract 10 from the product of 9 and 9.

3. Compare the products and determine which product is greater and by how much, or whether they are equal.

$$3 \times 4 \dots 4 \times 5$$

$$7 \times 8 \dots 6 \times 9$$

$$2 \times 8 \dots 3 \times 8$$

$$3 \times 10 \dots 6 \times 5$$

$$2 \times 9 \dots 3 \times 6$$

$$7 \times 8 \dots 8 \times 7$$

$$4 \times 5 \dots 5 \times 4$$

$$9 \times 3 \dots 4 \times 9$$

$$9 \times 4 \dots 6 \times 6$$

4. Find missing digits:

a.

$$\begin{array}{r} \square 9 5 \\ + 3 \square 4 \\ \hline 8 4 \square \end{array}$$

b.

$$\begin{array}{r} \square 2 0 \\ - 4 \square 7 \\ \hline 3 6 \square \end{array}$$

c.

$$\begin{array}{r} 2 \square \\ \times \square 2 \\ \hline \square 8 \\ + 7 \square \\ \hline 7 \square 8 \end{array}$$

d.

$$\begin{array}{r} \square \square \square \\ 8 \overline{) \square \square \square \square} \\ \underline{- 3 \square} \\ 2 \square \\ \underline{- \square \square} \\ 0 \end{array}$$

e.

$$\begin{array}{r} 3 \square 2 \\ \times \square \square 4 \\ \hline \square 5 6 \square \\ + \square 7 4 \square \\ \hline \square \square \square \square \square \square \end{array}$$

Word problems.

5. A dog weighs 2 pounds more than a cat. Together, a dog and a cat weigh 12 pounds. How many pounds does the dog weigh? How many pounds does the cat weigh?

Problem.

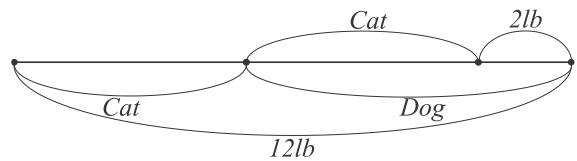
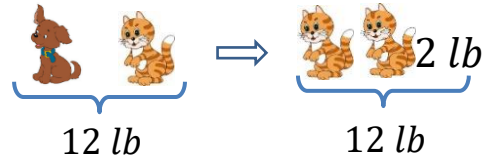
What do we know?

$$\begin{aligned} \text{Cat} &= \text{Dog} + 2 \\ \text{Cat} + \text{Dog} &= 12 \text{ lb} \end{aligned}$$

What is the question?

$$\begin{aligned} \text{Cat} &=? \text{ lb} \\ \text{Dog} &=? \text{ lb} \end{aligned}$$

$$\text{Cat} + \text{Cat} \Rightarrow 12 - 2 \text{ lb}$$



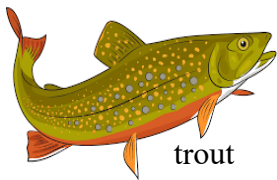
6. An adult elephant weighs 10833 pounds more than a baby elephant. Together they weigh 32037 pounds. How many pounds does a baby elephant weight?

7. There are 4 times more trout in the lake than perch. In total there are 1585 perch and trout. How many trout and how many perches are in the lake?

8. Evaluate:

a. $(418:418 - 0 \cdot 75) \cdot (62 - 62) + (89 \cdot 1):89;$

b. $(54:1 + 0:1) \cdot 0 + (25 - 24) \cdot (12 + 0:36);$



trout

9. Peter and Robert went camping. They walked 14 km and rested. After the rest, they walked 6 km less than before the rest, and stopped for the night. Now they have to go three times further than they have already gone. How long is the

trip planned?



10. Find the unknown x

$$x + 6 = 84;$$

$$x \cdot 6 = 84$$

$$x - 7 = 63;$$

$$x:7 = 63$$

$$54 - x = 27;$$

$$54:x = 27$$

11. In the examples below, some digits were substituted with asterisks. Can you explain if these problems were solved correctly.

$$* + 2* = *$$

$$* + * = 6*$$

$$*5 + *7 = *8$$

$$**5 + *7 = *2$$

$$3** - ** = **$$

$$**9 - *4 = **3$$

12. Can you compare?

$$x - 315 \dots x - 415$$

$$m \cdot 3 \dots m : 3$$

$$a \cdot 8 + a \cdot 6 \dots 15 \cdot a$$

$$y + 205 \dots 502 + y$$

$$c : 38 \dots c : 46$$

$$b \cdot 24 - b \cdot 10 \dots b \cdot 7$$

$$48 - t \dots 200 - t$$

$$512 : d \dots 312 : d$$

$$6 \cdot c + 3 \cdot c \dots c \cdot 9$$

13. Solve the following riddles (each letter represents a digit)

$$\begin{array}{r} \text{S O} \\ + \text{S O} \\ \hline \text{T O O} \end{array}$$

$$\begin{array}{r} \text{U S} \\ + \text{A S} \\ \hline \text{A L L} \end{array}$$

$$\begin{array}{r} \text{C O C A} \\ + \text{C O L A} \\ \hline \text{O A S I S} \end{array}$$

14. Mary and Julia are twins. They invited 28 friends to their birthday party. Mary wrote 3 time as many invitation cards as Julia did. How many cards did Julia write? (Draw a schematic picture of the problem if it can help you.)

15. Place parentheses into the following expression so that the statement is true.

a. $15 - 35 + 5 \div 4 = 5$

b. $60 + 40 - 16 \div 4 = 66$

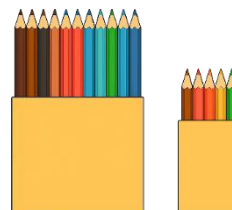
c. $24 \div 56 - 8 \times 4 = 1$

d. $96 - 12 \times 6 \div 3 = 8$

e. $64 \div 64 - 8 \times 4 = 2$

f. $63 \div 9 + 54 = 1$

g. $75 - 15 \div 5 + 10 = 22$.



16. 8 large boxes contain the same number of pencils as 12 small boxes.

How many pencils are in one small box if one large box contains 18 pencils?