

EASY

1] $5,342 \times 11 =$

2] $9,095 \times 9,999 =$

3] $(56)^2 =$

4] $21,021 \div 9 =$

5] $2,489 \div 11 =$

6] $58 \times 62 =$

7]
$$\begin{array}{r} 42 \\ \times 23 \\ \hline \end{array}$$

8] $47^2 - 43^2 =$

9] $2,412 \times 21 =$

10] $2x(4x - 2) =$

11] $(2x - 3)^2 =$

12] $94 \times 93 =$

13] $(218)^2 = 47,424$, TRUE or FALSE?

14] $104 \times 112 =$

For numbers 15 to 18, find x.

15] $\frac{3x}{4} = 15$

16] $7x + 2 = 3x + 18$

17] $7x^2 = 175$

18] $2x + 3 = 5$

19] Find x and y, given
 $3x + y = 24$ and $x - y = 16$.

20]
$$\begin{array}{r} 121 \\ \times 123 \\ \hline \end{array}$$

AVERAGE

1] $312 \times 306 =$

2] $(x + 1)(x^2 + 2x + 3) =$

3] $(3x^2 - 1)(x^2 - 3) =$

4] $999 \times 999 + 2 \times 999 =$

5] $111,111,111 \times 111,111,111 =$

Solve for x in the following equations:

6] $(2x+4)/10 = 3/5$

7] $5x + 5 = 2x + 11$

8] $x/3 - x/5 = 8$

9] $9x + 7y = 86$
 $x + 7y = 22$; $x = ?$

10] The sum of 5 consecutive multiples of 3 is 180. Find the numbers.

DIFFICULT

1] $5555^2 - 4444^2 =$

2] $(2x^2 + x + 1)(x^2 - 2x - 5) =$

3] Find x and y, given $8x - 3y = 27$ and $3x - 8y = 17$.

4] What is the 3rd term of the product of $(2x^3 + x^2 + 3x + 4)$ and $(x^3 + 3x^2 - 4x + 2)$?

5] What is the point of intersection of the lines $3x + y = 9$ and $2x - y = 1$?

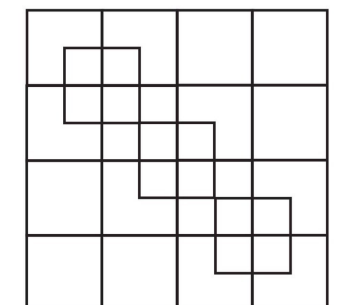
6] The sum of two numbers is 128 while their difference is 72. What is the smaller number?

7] The sum of two numbers is 20, while the sum of their squares is 298. Find the bigger number.

8] Find four consecutive even numbers that add up to 460.

9] In exchange for 7 ₱1,000 bills, the bank teller gave me 29 bills in denominations of ₱200 and ₱500 bills. How many ₱200 bills did I receive?

10] Count the number of squares in this illustration.



Answers to HS I – Grades 7 & 8

EASY (2 Pts each)

- 1) 58,762
- 2) 90,940,905
- 3) 3,136
- 4) 2335 r. 6
- 5) 226 r. 3
- 6) 3,596
- 7) 966
- 8) 360
- 9) 50,562
- 10) $8x^2 - 4x$
- 11) $4x^2 - 12x + 9$
- 12) 8,742
- 13) False
- 14) 11,648
- 15) 20
- 16) 4
- 17) 5
- 18) 1
- 19) $X = 10, y = -6$
- 20) 14, 883

Average Questions (3 – pts)

- 1) 95, 472
- 2) $x^3 + 3x^2 - 5x + 3$
- 3) $3x^4 - 10x^2 + 3$
- 4) 999,999
- 5) 12,345,678,987,654,321
- 6) $X = 1$
- 7) $X = 2$
- 8) $X = 60$
- 9) $X = 8$
30, 33, 36, 39, 42

Difficult questions (4 points each)

- 1) 11,108,889
- 2) $2x^4 - 3x^3 - 11x^2 - 7x - 5$
- 3) $X = 3, y = -1$
- 4) $-2x^4$
- 5) (2, 3)
- 6) 28
- 7) 17
- 8) 112, 114, 116, 118
- 9) 25 – P200 bills
- 10) 51