**Math problems, solving fraction equations**

5¼ + 3⅜ = ? 5 X 4 +1 = 20 +1 = 21. 21 is placed

over 4 to make 21

 4

21 + 3⅜ = ? 3 X 8 + 3 = 24 + 3 = 27. 27 is placed

 4

over 8 to make 27

 8

21 + 27 = ? 21 becomes 42 so that the lower

4 8 4 8

numbers, denominators, are equal.

42 + 27 = 69

 8 8 8

6⅔ + 5¾ = ? 6 X 3 + 2 = 18 + 2 = 20. 20 is placed

over 3 to make 20

 3

20 + 5¾ = ? 5 X 4 + 3 = 20 + 3 = 23. 23 is placed

3

over 4 to make 23

 4

20 + 23 = ? To make the denominators match, 3 is

3 4

multiplied x 4 to make 12.

The top numbers 20 and 23 are then multiplied by 4 and 3 to

 have the fractions remain equal.

20 becomes 80, and 23 becomes 69

 3 12 4 12]

80 + 69 = 149

12 12 12

7½ - 4⅝ = ? 7 X 2 + 1 = 14 + 1 = 15. 15 is placed

over 2 to make 15

 2

15 - 4⅝ = ? 4 X 8 + 5 = 32 + 5 = 37. 37 is placed

 2

over 8 to make 37

 8

15 - 37 = ? 15 is then multiplied by 4 to make the

 2 8 2

denominators equal.

60 – 37 = 23

 8 8 8

12⅔ - 5¾ = ? 12 X 3 + 2 = 36 + 2 = 38. 38 is placed

over 3 to make 38

 3

38 - 5¾ = ? 5 X 4 + 3 = 20 + 3 = 23. 23 is placed

 3

over 4 to make 23

 4

38 – 23 = ? 38 and 23 are multiplied by 4 and 3 to make

 3 4

denominators equal.

152 - 69 = 83

 12 12 12

**Tricks for solving fraction problems**

A = C is the same as AD=BC or A= BC

B D D

 or

C= AD

 B

A(X) = C(Y) is the same as AD(X) = BC(Y) or

 B D

C(Y) = AD(X)

 B

 or

A(X) = BC(Y)

 D

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

 4½ 5⅖ 2⅘ 6⅛ 3½ 8⅖ 7⅙ 9⅚ 5¾ 1⅛

+3⅔ + 4⅚ + 7⅓ +1⅙ +5⅞ +2⅓ +5⅔ +3¼ +6⅓ +2⅔

 7⅓ 6⅛ 8⅖ 9⅚ 3**1/9** 5**3/5** 9**2/3** 4**6/7** 5**1/8** 7**4/5** 8**4/7**

**-**4½ **-**5⅞ **-**3¼ **-**5⅖ **-**2**1/7**   **-**3**2/4** **-**6**3/7 -**3**1/2 -**4**2/7 -**2**1/9 -**4**2/6**

**Math Skills : Division Tables**

**1** **÷ 1 = 1 2 ÷ 2 = 1 3 ÷ 3 = 1 4 ÷ 4 = 1**

**2 ÷ 1 = 2 4 ÷ 2 = 2 6 ÷ 3 = 2 8 ÷ 4 = 2**

**3 ÷ 1 = 3 6 ÷ 2 = 3 9 ÷ 3 = 3 12 ÷ 4 = 3**

**4 ÷ 1 = 4 8 ÷ 2 = 4 12 ÷ 3 = 4 16 ÷ 4 = 4**

**5 ÷ 1 = 5 10 ÷ 2 = 5 15 ÷ 3 = 5 20 ÷ 4 = 5**

**6 ÷ 1 = 6 12 ÷ 2 = 6 18 ÷ 3 = 6 24 ÷ 4 = 6**

**7 ÷ 1 = 7 14 ÷ 2 = 7 21 ÷ 3 = 7 28 ÷ 4 = 7**

**8 ÷ 1 = 8 16 ÷ 2 = 8 24 ÷ 3 = 8 32 ÷ 4 = 8**

**9 ÷ 1 = 9 18 ÷ 2 = 9 27 ÷ 3 = 9 36 ÷ 4 = 9**

**10 ÷ 1 =10 20 ÷ 2 =10 30 ÷ 3 =10 40 ÷ 4 =10**

**5 ÷ 5 = 1 6 ÷ 6 = 1 7 ÷ 7 = 1 8 ÷ 8 = 1**

**10 ÷ 5 = 2 12 ÷ 6 = 2 14 ÷ 7 = 2 16 ÷ 8 = 2**

**15 ÷ 5 = 3 18 ÷ 6 = 3 21 ÷ 7 = 3 24 ÷ 8 = 3**

**20 ÷ 5 = 4 24 ÷ 6 = 4 28 ÷ 7 = 4 32 ÷ 8 = 4**

**25 ÷ 5 = 5 30 ÷ 6 = 5 35 ÷ 7 = 5 40 ÷ 8 = 5**

**30 ÷ 5 = 6 36 ÷ 6 = 6 42 ÷ 7 = 6 48 ÷ 8 = 6**

**35 ÷ 5 = 7 42 ÷ 6 = 7 49 ÷ 7 = 7 56 ÷ 8 = 7**

**40 ÷ 5 = 8 48 ÷ 6 = 8 56 ÷ 7 = 8 64 ÷ 8 = 8**

**45 ÷ 5 = 9 54 ÷ 6 = 9 63 ÷ 7 = 9 72 ÷ 8 = 9**

**50 ÷ 5 =10 60 ÷ 6 =10 70 ÷ 7 =10 80 ÷ 8 =10**

**9 ÷ 9 = 1 10 ÷ 10 = 1 11 ÷ 11 = 1 12 ÷ 12 = 1**

**18 ÷ 9 = 2 20 ÷ 10 = 2 22 ÷ 11 = 2 24 ÷ 12 = 2**

**27 ÷ 9 = 3 30 ÷ 10 = 3 33 ÷ 11 = 3 36 ÷ 12 = 3**

**36 ÷ 9 = 4 40 ÷ 10 = 4 44 ÷ 11 = 4 48 ÷ 12 = 4**

**45 ÷ 9 = 5 50 ÷ 10 = 5 55 ÷ 11 = 5 60 ÷ 12 = 5**

**54 ÷ 9 = 6 60 ÷ 10 = 6 66 ÷ 11 = 6 72 ÷ 12 = 6**

**63 ÷ 9 = 7 70 ÷ 10 = 7 77 ÷ 11 = 7 84 ÷ 12 = 7**

**72 ÷ 9 = 8 80 ÷ 10 = 8 88 ÷ 11 = 8 96 ÷ 12 = 8**

**81 ÷ 9 = 9 90 ÷ 10 = 9 99 ÷ 11 = 9 108 ÷ 12 =9**

**90 ÷ 9 =10 100 ÷ 10 =10 110 ÷ 11 =10 120 ÷ 12=10**

**Math skills: Multiplication tables**

**1 X 1 = 1 2 x 1 = 2 3 X 1 = 3 4 X 1 = 4 5 X 1 = 5**

**1 X 2 = 2 2 X 2 = 4 3 X 2 = 6 4 X 2 = 8 5 X 2 = 10**

**1 X 3 = 3 2 X 3 = 6 3 X 3 = 9 4 X 3 = 12 5 X 3 = 15**

**1 X 4 = 4 2 X 4 = 8 3 X 4 = 12 4 X 4 = 16 5 X 4 = 20**

**1 X 5 = 5 2 X 5 = 10 3 X 5 = 15 4 X 5 = 20 5 X 5 = 25**

**1 X 6 = 6 2 X 6 = 12 3 X 6 = 18 4 X 6 = 24 5 X 6 = 30**

**1 X 7 = 7 2 X 7 = 14 3 X 7 = 21 4 X 7 = 26 5 X 7 = 35**

**1 X 8 = 8 2 X 8 = 16 3 X 8 = 24 4 X 8 = 32 5 X 8 = 40**

**1 X 9 = 9 2 X 9 = 18 3 X 9 = 27 4 X 9 = 36 5 X 9 = 45**

**1 X 10 =10 2 X 10 =20 3 X 10 =30 4 X 10 = 40 5 X 10 =50**

**6 X 1 = 6 7 X 1 = 7 8 X 1 = 8 9 X 1 = 9 10 X 1 = 10**

**6 X 2 = 12 7 X 2 = 14 8 X 2 = 16 9 X 2 = 18 10 X 2 =20**

**6 X 3 = 18 7 X 3 = 21 8 X 3 = 24 9 X 3 = 27 10 X 3 = 30**

**6 X 4 = 24 7 X 4 = 28 8 X 4 = 32 9 X 4 = 36 10 X 4 = 40**

**6 X 5 = 30 7 X 5 = 35 8 X 5 = 40 9 X 5 = 45 10 X 5 = 50**

**6 X 6 = 36 7 X 6 = 42 8 X 6 = 48 9 X 6 = 54 10 X 6 = 60**

**6 X 7 = 42 7 X 7 = 49 8 X 7 = 56 9 X 7 = 63 10 X 7 = 70**

**6 x 8 = 48 7 X 8 = 56 8 X 8 = 64 9 X 8 = 72 10 X 8 = 80**

**6 X 9 = 54 7 X 9 = 63 8 X 9 = 72 9 X 9 = 81 10 X 9 = 90**

**6 X 10 =60 7 X 10 =70 8 X 10 =80 9 X 10 =90 10 X 10=100**

**11 X 1 = 11 12 X 1 = 12 0 X 1 = 0**

**11 X 2 = 22 12 X 2 = 24 0 X 2 = 0**

**11 X 3 = 33 12 X 3 = 36 0 X 3 = 0**

**11 X 4 = 44 12 X 4 = 48 0 X 4 = 0**

**11 X 5 = 55 12 X 5 = 60 0 X 5 = 0**

**11 X 6 = 66 12 X 6 = 72 0 X 6 = 0**

**11 X 7 = 77 12 X 7 = 84 0 X 7 = 0**

**11 X 8 = 88 12 X 8 = 96 0 X 8 = 0**

**11 X 9 = 99 12 X 9 = 108 0 X 9 = 0**

**11 X 10 =110 12 X 10 =120 0 X 10 = 0**