

# (Q) Pluses and Minuses (1/1)

- Q1.** a.  $1/8 + 2/8 = 3/8$   
b.  $7/3 + 1/6 = 2 \frac{1}{2}$   
c.  $2/9 + 1/9 = 2/6$   
d.  $5/5 + 1/7 = 1 \frac{1}{7}$   
e.  $2/7 + 2/5 = 24/35$   
f.  $2/6 + 1/9 = 8/18$   
g.  $1/4 - 3/20 = 1/10$

- Q2.** a. tört  
b. on pys  
c. čybirgi ýs

**Q3.** whole (indicates that the number before it is not part of a fraction)

## Explanation

The base of the Khakas number system is 10. The numbers from 1 to 10 in Khakas are as follows: pir, iki, ýs, tört, pys, altw, čyti, sygis, toğus, on. The word for 20 is čybirgi.

Numbers above 10 are formed as follows: \_number\_tens\_ \_number\_units. Fractions in Khakas are formed using two different constructs:

- 1) (Denominator + -nuŋ / -niŋ<sup>1</sup>) (numerator + -zi / -i<sup>2</sup>). Here if the base of the numeral ends in -s<sup>3</sup>, it is voiced. Only then add the appropriate suffix.
- 2) (Numerator) (Denominator + -luč/-lig or -nuč/-nig or -tuč/-tig<sup>4</sup>)

<sup>1</sup>This is a possessive ending. In general, except -nuŋ / -niŋ. The ending is -tuŋ / -tiŋ. The first pair is used when the base numeral ends in a vowel or voiced consonant, the second when the base ends in a voiceless consonant. Since voicing occurs before adding the ending, the second pair of endings is not observed in this data.

<sup>2</sup>This is the ending of the possessive form in the third person. Generally endings are -zu / -zi when the base ends in a vowel and -u / -i when it ends in a consonant. Only the former occur in the data.

<sup>3</sup>In general, when the base of the numeral ends in p / t / s they are voiced, converting respectively to b / d / z. In the data only the s → z voicing is observed.

<sup>4</sup>-luč/-lig is added to a numeral whose base ends in a vowel or voiced consonant, other than m / n / ŋ, in which case -nuč/-nig is added; otherwise -tuč/-tig is added.

Note: The suffixes containing -u are added to the numerals whose last syllable contains -y / -o, otherwise use endings containing -i.

