

NEGATIVE ZAHLEN

1 a) $76 - (13 - 4) - (46 - 34) + (56 - 39) =$
 $76 - 13 + 4 - 46 + 34 + 56 - 39 = \underline{72} \quad 1/2$

3 b) $(1 + 23) - [(1 - 15 + 18) - (12 + 17)] - (23 - 12 + 19) =$
 $23 + 15 - 18 + 12 + 17 - 23 + 12 - 19 = \underline{19} \quad 1/2$

c) $23(19 - 14) - 5(-13 + 5) - (-10 - 45) =$
 $23 \cdot 5 - 5 \cdot (-8) + 55 = \underline{210} \quad 1/2$

2 a) $(-\frac{2}{15}) + (-\frac{4}{9}) = -\frac{6}{45} - \frac{20}{45} = \underline{-\frac{26}{45}} \quad 1/2$

b) $(-\frac{1}{2}) - (-\frac{3}{8}) - (+\frac{8}{9}) = -\frac{36}{72} + \frac{27}{72} - \frac{64}{72} = \underline{-\frac{73}{72}} = -1 \frac{1}{72} \quad 1/2$

3 c) $\frac{(-\frac{1}{2}) \cdot (-\frac{1}{4} - \frac{2}{3})}{(-\frac{7}{8}) \cdot (-\frac{1}{4}) (\frac{1}{3} - \frac{1}{2})} = \frac{(-\frac{1}{2}) \cdot (-\frac{3}{12} - \frac{8}{12})}{(\frac{7}{32}) (\frac{2}{6} - \frac{3}{6})} = \frac{1/2 \cdot (-\frac{1}{2}) \cdot (-\frac{11}{12})}{(\frac{7}{32}) \cdot (-\frac{1}{6})} =$
 $= \frac{(\frac{11}{24})}{(-\frac{7}{192})} = \frac{11}{24} \cdot (-\frac{192}{7}) = \underline{-\frac{88}{7}} = -12 \frac{4}{7} \quad 1/2$

3 a) $\frac{((-54) + (-98)) \cdot ((-54) - (-98))}{(-2)} = \frac{(-152) \cdot (44)}{(-2)} = \underline{+3344} \quad 1/2$

3 b) $\frac{((-96) - (+24))}{(+4) \cdot (-2)} = \frac{-120}{-8} = \underline{15} \quad 1/2$

c) $((-32) + (-4)) + ((-32) - (-4)) = 128 + (-28) = \underline{100} \quad 1/2$

4 a) $a + b + c = (-21) + 15 + (-4) = -21 + 15 - 4 = \underline{-10} \quad 1/2$

(ab) c = $((-21) \cdot 15) \cdot (-4) = (-315) \cdot (-4) = \underline{1260} \quad 1/2$

a(b+c) = $(-21) \cdot (15 + (-4)) = (-21) \cdot 11 = \underline{-231} \quad 1/2$

$$b) \quad c = \frac{(ab)c}{ab} = \frac{-90^{1/2}}{(-3) \cdot (-6)} = \underline{\underline{-5}} \quad 1/2$$

$$a+b+c = (-3) + (-6) + (-5) = \underline{\underline{-14}} \quad 1/2$$

$$a(b+c) = (-3) \cdot ((-6) + (-5)) = (-3) \cdot (-11) = \underline{\underline{33}} \quad 1/2$$

$$c) \quad c = \frac{a \cdot (b+c)}{a} - b = \frac{-8^{1/2}}{4} - (-15) = \underline{\underline{13}} \quad 1/2$$

$$a+b+c = (4) + (-15) + (13) = \underline{\underline{2}} \quad 1/2$$

$$(ab)c = (14) \cdot (-15) \cdot 13 = (-210) \cdot 13 = \underline{\underline{-2730}} \quad 1/2$$

$$d) \quad a = (a+b+c) - b - c = -22 - (-7) - 12 = \underline{\underline{-27}} \quad 1/2$$

$$(ab)c = ((-27) \cdot (-7)) \cdot 12 = 189 \cdot 12 = \underline{\underline{2268}} \quad 1/2$$

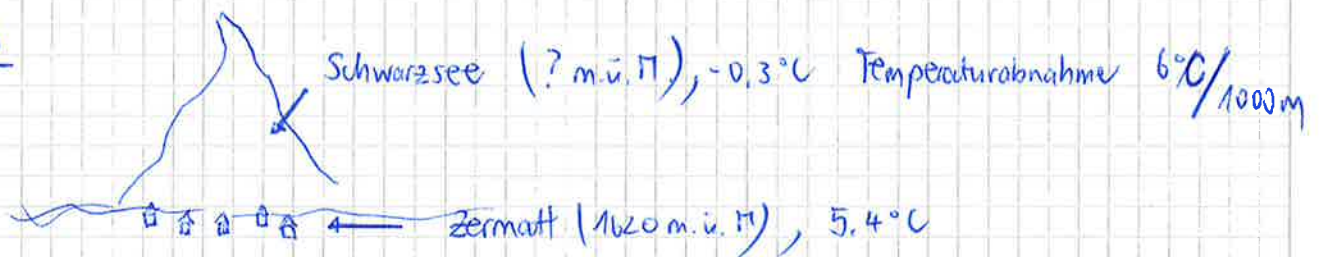
$$a(b+c) = (-27) \cdot ((-7) + 12) = (-27) \cdot 5 = \underline{\underline{-135}} \quad 1/2$$

$$\underline{5} \quad a) \quad (-144) : (-12) + (-6) : (-3) = 12 + 2 = \underline{\underline{14}} \quad 1/2$$

$$b) \quad (-4) \cdot (-5) + 2 \cdot (-3) + (-6) \cdot (-2) = 20 - 6 + 12 = \underline{\underline{26}} \quad 1/2$$

$$c) \quad (-6) \cdot (-5) : (-2) + (-3) \cdot (-5) = 30 : (-2) + 15 = \underline{\underline{0}} \quad 1/2$$

6



$$6^\circ\text{C} \hat{=} \frac{1000\text{m} \cdot 5.7^\circ\text{C}}{? \quad 6^\circ\text{C}} = 950\text{m} \quad 1$$

$$\Rightarrow 1620\text{m} + 950\text{m} = \underline{\underline{2570\text{m.ü.M}}} \quad 1$$

26 PUNKTE

26	6	5.75	5.5	5.5	5.25	5	5	5.4	5.4	5.4	5.2	4	4	3.95	3.5	3.5	3.25	3	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0
24	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	

1/2 P. auftruden