

Max's Minus-Number Mountain Challenge

Learning objective: To understand, order, and calculate with negative numbers in context.

Max the Monkey is scaling the Snowy Peaks to find the best spot for his maths puzzles. Help him navigate the temperature drops and altitude changes by answering these 10 questions.

Answer Key: 1. B (-3°C), 2. False, 3. -7 , 4. 8, 5. True, 6. -4 , 7. C (5), 8. 12, 9. False, 10. B (10).

Word bank: integer · negative · positive · descend · ascend · difference · below · zero

1. 1. At the base of the mountain, the temperature is 2°C . It drops by 5°C as Max climbs higher. What is the new temperature? A) 3°C , B) -3°C *, C) 7°C , D) -7°C (1 mark)

2. 2. True or False: -15 is greater than -10 . (1 mark)

3. 3. Max finds a cave at 3 metres above sea level and a hidden tunnel 10 metres below sea level. What integer represents the tunnel's position? (1 mark)

4. 4. What is the difference between 5 and -3 ? (1 mark)

5. 5. True or False: Zero is neither positive nor negative. (1 mark)

6. 6. Max is at -9 on a number line. He moves 5 steps to the right (towards positive). Where is he now? (1 mark)

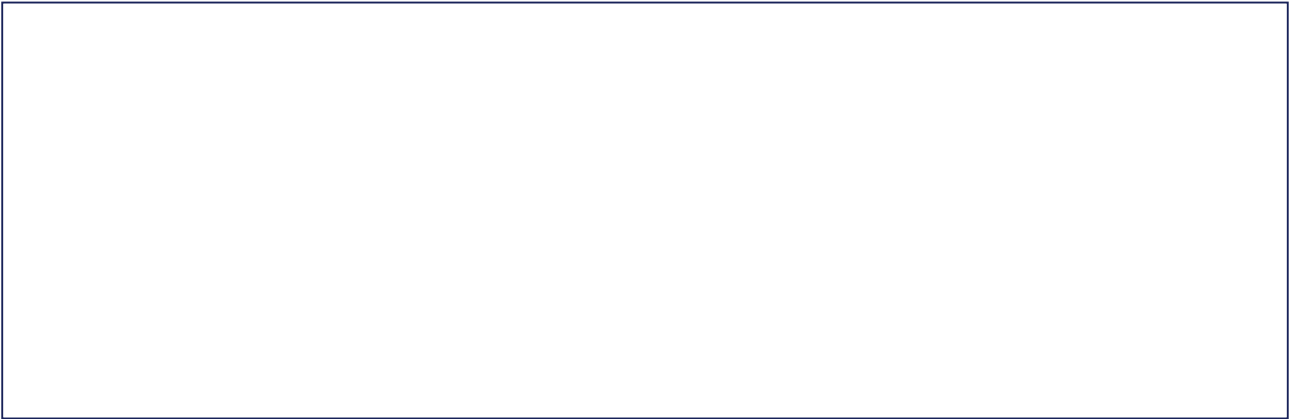
7. 7. Which number is the largest? A) -20 , B) -5 , C) 5^* , D) 0 (1 mark)

8. 8. A bank account has $-\text{£}4$. If you add $\text{£}16$ to the account, what is the new balance in pounds (£)? (1 mark)

9. 9. True or False: When ordering -2 , -8 , and -4 from smallest to largest, the order is -8 , -4 , -2 . (1 mark)

10. 10. If Max starts at -5 and climbs 15 steps up, where does he land? A) 20, B) 10^* , C) 5, D) -10 (1 mark)

Draw: Draw a tall mountain with a number line running up the side. Place Max the Monkey at the -5 mark, and draw a flag at the 10 mark to show his goal.



Extension challenge: Max wants to build a shelter. If he starts with -£10 (debt) and earns £3 each day for 5 days, will he be in profit or still in debt? Show your calculation.