Name _____ **Math 7: Representation of Integers**

1. True or False: "-9 can be written as 9." _____

2. True or False: "$+6$ is equal to 6." _____

3. True or False: "Zero is neither positive nor negative." _____

4. Express the following statement as a directed number (positive or negative): "Losing $82." _____

5. Express the following statement as a directed number (positive or negative): "A temperature fall of 10 degrees Celsius." _____

6. Express the following statement as a directed number (positive or negative): "Driving 2 km due north." _____

7. Express the following statement as a directed number (positive or negative): "A loss of $142." _____

8. Express the following statement as a directed number (positive or negative): "Arriving 48 minutes before a meeting." _____

9. Express the following statement as a directed number (positive or negative): "Withdrawing $62." _____

10. Suzie's car used $28\frac{1}{4}$ liters of petrol. _____
Represent this situation using a directed number.

11. Write the directed number that is the *opposite* of the statement: "Descending 10 floors." _____

12. Write the directed number that is the *opposite* of the statement: "A weight loss of 9 kilograms." _____

13. Consider the following statement: "Arriving 29 minutes late."

a. Pick the statement that describes the opposite of this. _____

A) Arriving 18 minutes late.
B) Arriving 18 minutes early.
C) Arriving 29 minutes early.
D) Arriving on time.

b. "Arriving 29 minutes late" is represented by the number 29. _____
What number should represent "29 minutes early"?

14. Consider the following statement: "Cycling 5 km due east."

a. Pick the statement that describes the opposite of this. _____

A) Cycling 5 km due north.
B) Cycling 6 km due east.
C) Cycling 5 km due south.
D) Cycling 5 km due west.

b. "Cycling 5 km due east" is represented by the number 5. _____
What number should represent "Cycling 5 km due west"?

15. If Neil took 9 steps left then 3 steps right, where does he end up?

a. Is he left or right of his starting position? _____

A) Left
B) Right
C) Back to where he started

b. How many steps away from his starting position is he? _____

16. A man drove 8 km East, then 25 km West, then 4 km East.

a. Is he now West or East of his starting position? _____

A) West B) East C) Back to where he started

b. How far is he from his starting position? _____

17. Kathleen enters an elevator on the ground floor (level 0). _____
She goes up 7 floors, then down 12 floors, then up 5 floors.
Where does she end up?

A) Above ground level B) Below ground level C) Back at ground level

18. A man drove 7 km East, then 11 km West, then 4 km East.

a. Is he now West or East of his starting position? _____

A) West B) East C) Back to where he started

b. How far is he from his starting position? _____

19. During a training, a sail boat traveled back and forth along a straight route.
It sailed 9 km West, then 15 km East, then 6 km West.

a. At the end is he West or East of his starting position? _____

A) West B) East C) Back to where he started

b. How far is he from his starting position? _____

20. A car moves East along a route and then West along the same route. _____
If it ends up 0 km West from the starting position then:

A) the car is further to the East from the starting position.

B) the car is back at the start.

C) the car is further to the West from the starting position.

D) there is not enough information to tell.

21. A ferry only moves North and South along a route. _____
If it ends up 0 km North of the starting point after a trip, then:

A) the ferry is further to the North from the starting position.

B) there is not enough information to tell.

C) the ferry is back at the start.

D) the ferry is further to the South from the starting position.

22. A temperature over a day rose and fell. It ended up 0 degrees _____
Fahrenheit from where it started at the beginning of the day.

A) The temperature is lower than it was at the beginning of the day.

B) The temperature is exactly the same as it was before.

C) There is not enough information to tell.

D) The temperature is higher than it was at the beginning of the day.

23. The temperature was 6 degrees Celsius during the day. _____
It fell by 7 degrees Celsius by night. What is the final temperature?

24. Emily had $57 with her. She spent $14 on a T-shirt and _____
lent $18 to her friend. How much money does she have left?

25. James enters an elevator at the 4^{th} floor above ground (the ground floor is zero). The elevator goes down 2 floors, then up 9 floors, and lastly down 2 floors.

a. Does James end up above or below the ground floor? _____

A) Above B) Below C) Back to where he started

b. On which floor does he end up? _____

26. A man drove 3 km East, then 17 km West, then 14 km East.

a. Is he how West or East of his original position? _____

A) West B) East C) Back to where he started

b. How far is he from his original position? _____