UNIT 5 Study Guide – CCM6 and CCM6+

I. What is an integer?

1. An integer is a _____ number that is _____, _____, or _____.
2. Three examples of integers: _____, _____, _____
3. Three examples of numbers that are NOT integers: _____, _____, _____
4. A submarine dives down 80 feet below the surface, then dives down another 15 feet. Write the current depth of the submarine as an integer: _____.
5. You withdraw $50 from your savings account, then deposit $30.
   What is the net change written as an integer? _____
6. On an elevator, you ride down to basement level 8. Write that level as an integer: _____.
7. You are at basement level 8 and ride up 12 floors. Write your current floor as an integer: _____.

II. Absolute Value and Opposite

8. The absolute value of a number is the _____ from _____.
9. A number's absolute value will never be _____.
10. The opposite of a number is the same distance from _____ except on the other side of _____.
11. Complete the following equations that include symbols for opposite and absolute value.

    a. $-(-3)$=_____ b. $-(5)$ =_____ c. $|7|$ =_____

    d. $|-8|$ =_____ e. $-|-12|$ =_____ f. $-|3|$=_____

12. Why is absolute value often described as "magnitude?" What **can't** you find with absolute value?

III. Convert and Compare Fractions, Decimals, and Percents

Write each fraction or mixed number as a decimal.

13. $1\frac{3}{16}$ _____ **14.** $\frac{2}{5}$ _____ **15.** $6\frac{5}{11}$ _____

Write each decimal as a fraction or a mixed number in simplest form.

16. 4.75 _____ 17. 0.24 _____ 18. 0.325 _____

Convert these fractions and decimals to percents.

19. $\frac{4}{5}$ = _____% 20. 0.35 = _____% 21. $\frac{3}{8}$ = _____% 22. 0.8 = _____%

Convert these percents to fractions (all fractions must be simplified).

23. 7% 24. 12% 25. 110%

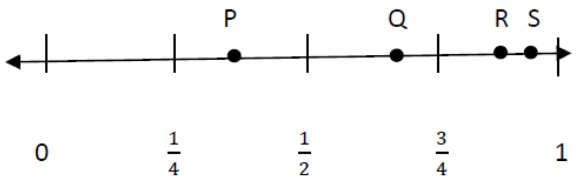
Convert these percents to decimals.

26. 7% 27. 12% 28. 110%

29. Inside the box, write >, <, or =.

a) $\frac{3}{5}$ ☐ $\frac{5}{7}$ b) -3.57 ☐ -3.5 c) $-\frac{2}{9}$ ☐ $-\frac{9}{11}$ d) $-8\frac{10}{27}$ ☐ - 8.3

30. **Which point** on the number line is the graph of 0.875?



31. Order the set of rational numbers from least to greatest: $-1.01,\ -1.1,\ -1\frac{1}{9},\ -1\frac{1}{11}$

IV. Ordering and Comparing Integers

Continent	Highest Point	Elevation (ft) above sea level	Lowest Point	Elevation (ft) below sea level
Africa	Mount Kilimanjaro	19,340	Lake Assal	-512
Antarctica	Vinson Massif	16,066	Bentley Subglacial Trench	-8,327
Asia	Mount Everest	29,035	Dead Sea	-1,349
Australia	Mount Kosciusko	7,310	Lake Eyre	-52
Europe	Mount Elbrus	18,510	Caspian Sea	-92
North America	Mount McKinley	20,320	Death Valley	-282
South America	Mount Aconcagua	22,834	Valdes Peninsula	-131

32. What is the highest point on Earth? _____Its elevation is _____ft.

33. Which point on Earth is lower—the Caspian Sea or Lake Eyre? _____

34. Write the **continents** in order from least to greatest according to their elevations ***BELOW*** sea level.

_____

_____

35. Write the **continents** in order by their **highest points**, from greatest to least feet ***ABOVE*** sea level.

_____

_____

36. Which set of integers is written from **greatest to least?** Circle your choice.

a) 7, -4, -5, 2 b) 7, -5, 4, -2 c) 7, 5, -4, -2 d) 7, 5, -2, -4