Name _____ Date _____ Class_____

American Math 6th Grade HW 16;(Winter Break Assessment)

Write each expression in exponential form and find its value.

1. $6 \times 6 \times 6 \times 6$

_____

2. $1.5 \times 1.5 \times 1.5$

_____

Compare using >, <, or =.

3. $\left(\frac{1}{3}\right)^4$ _____ $\left(\frac{1}{3}\right)^0$

4. -7^0_____ -4^0

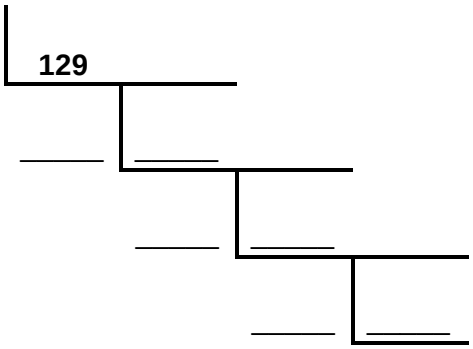
Write the prime factorizations.

5. 325

_____

Fill in the missing information. Add more "steps" to the ladder diagram and more "branches" to the tree diagram, if needed. Then, write the prime factorization of each number.

6.



7. Which set of rational numbers is correctly ordered from greatest to least?

A –0.68, –0.66, –0.67, –0.65

B –0.65, –0.67, –0.68, –0.66

C –0.68, –0.67, –0.66, –0.65

D –0.65, –0.66, –0.67, –0.68

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8. Which statement about rational numbers is **not** correct?

   A All integers also rational numbers.

   B All rational numbers are also integers.

   C All rational numbers can be written in the form $\frac{a}{b}$.

9. Kevin compared the absolute values of $-2\frac{1}{8}$, -2.25, $2\frac{3}{8}$, -2.29, and $2\frac{4}{11}$. Which number has the greatest absolute value?

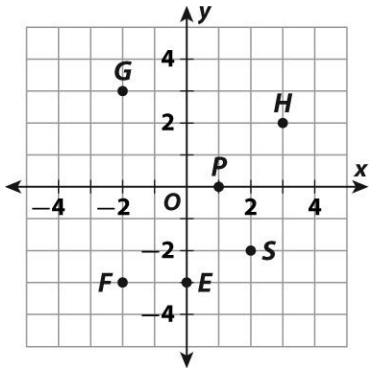
10. Which statement is **NOT** correct?

   A $-4.5 < 2$

   B $-4.5 < -4$

   C $-1.5 < -2.5$

Use the above grid for 11–13.



11. Which point has the ordered pair (3, 2)?

   A point *H*

   B point *G*

   C point *S*

12. Which ordered pair shows the location of point E?

   A (-3, 0)

   B (3, 0)

   C (0, -3)

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13. Graph M(–4, –2), N(3, –1), and Q(-3, 4).

Solve.

14. 31% of $18 is $_____.

15. 14 is ___ % of 150.

16. 21 is 60% of ___ .

Convert the following measurements.

17. 800 meters to miles

_____

18. 6.7 pounds to grams

_____

19. 600 centimeters to yards

_____

20. 25 fluid ounces to liters

_____