MATH E-3: Assignment 2

What set(s) of numbers do the following belong to (real, rational, irrational, integers, whole, natural). Be sure to list all for full credit.

1. Real, Irrational

2. –25 Real, Rational, Integers, Whole

3. π Real, Irrational

4. $\bar{}$ Real, Irrational

5. Is 1/7 a natural number? Why or why not?

While it is non-negative, it is not a whole number. Therfore it does not satisfy the qualifications of a Natural Number.

6. Is 2/3 a rational number? Why or why not?

2/3 Is not a rational number, because it requires the use of a decimal or fraction sign to be written.

Simplify if possible. If not, tell why you cannot:

$\sqrt{}$

5

8. $\sqrt{}$

The Square Root of -27 is an imaginary number.

9. $\sqrt{}$

The square root of -36 is an imaginary number.

10. $\sqrt{}$

3

Solve the following. Remember you can rewrite those problems that are subtractions as additions of the opposite.

11. $-27 - (-6)$

-21

12. $-3 - 15$

-18

13. $-6 + 9$

3

Solve the following.

14. ____________

Work:

(-6)(-4) = 24
24(3) = 72
-8 + -4 = -12

72 / -12 = -6

Answer:

-6

15. 5 − 6 (^{2} + 28 ÷ 7 * 2

Work:

5 - 6 (16) + 28 / 7 * 4 =
5 - 96 + 4 * 4 =
5 - 96 + 16=
-75

Answer:

-75

16. (−16) ∗ 4 (− 2) ∗ (− 3)

Work:

-64 (-2) * (-3) =
128 * (-3) =
-384

Answer:

-384

Solve the following.

17. $\frac{(-4) \times (-15) \times 4}{(-6) \times 10}$

Work:

$\frac{60 * 4 = 240}{-60} = -4$

Answer: -4

18. $(7 - 13) + 24 \div 4 * 2$

Work:

-6 + 6(-4)^2 + 24 / 4 * 2 =
-6 + 6(16) + 6 * 2 =
-6 + 96 + 12 =
102

Answer:

102

19.

1

20. $|-23|$

23