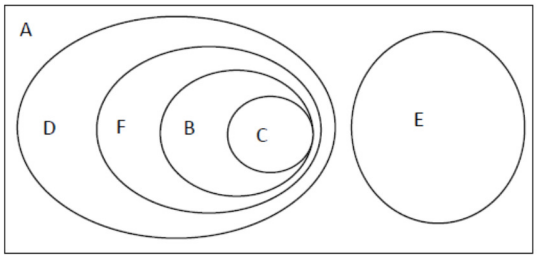
Name:_____BLOCK_____

Math 10 100% Quiz

Fill in the following diagram illustrating the relationship among the subsets of the real number system. (Use descriptions on previous page)




A_____

B_____

C_____

D_____

E_____

F_____

| Column 1. | Column 2. *Complete this column if you make an error in column 1.* | Column 3 *Complete this column if you make an error in column 2.* |
|---|---|---|
| 1. To what set(s) of the real number system does -3 belong? | To what set(s) of the real number system does ½ belong? | To what set(s) of the real number system does 11 belong? |
| 2. Find the GCF of 24,120 and 72 | Find the GCF of 16,100 and 56 | Find the GCF of 24,102 and 64 |
| 3. Find the LCM of 18,20,30 | Find the LCM of 18,24,30 | Find the LCM of 22,28,35 |
| 4. Simplify: $\sqrt{75}$ | Simplify: $\sqrt{98}$ | Simplify: $\sqrt{32}$ |

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| | | |
|---|---|---|
| 5. Simplify: $\sqrt{25x^6}$ | Simplify: $\sqrt{36b^4}$ | Simplify: $\sqrt{49x^6y^2}$ |
| 6. Simplify: $\sqrt[3]{54}$ | Simplify: $\sqrt[3]{56}$ | Simplify: $\sqrt[3]{24}$ |
| 7. Evaluate: $\sqrt{\frac{16}{25}}$ | Evaluate: $\sqrt{\frac{36}{49}}$ | Evaluate: $\sqrt{\frac{100}{121}}$ |
| 8. Simplify: $2\sqrt{10} \times 3\sqrt{6}$ | Simplify: $2\sqrt{5} \times 7\sqrt{10}$ | Simplify: $2\sqrt{2} \times 5\sqrt{10}$ |
| 9. Simplify: $-2\sqrt{2} \times -3\sqrt{14}$ | Simplify: $-5\sqrt{6} \times 3\sqrt{8}$ | Simplify: $-7\sqrt{3} \times -2\sqrt{15}$ |

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| | | |
|---|---|---|
| 10. Find the missing side in simplest radical form of a right angled triangle with legs 3 and 6. | Find the missing side in simplest radical form of a right angled triangle with legs 5 and 5. | Find the missing side in simplest radical form of a right angled triangle with legs 4 and 8. |
| 11. Find the area of the shaded region shown is lowest mixed radical form:<br>$3\sqrt{6}$<br>$2\sqrt{3}$  | Find the area of the shaded region shown is lowest mixed radical form:<br>$7\sqrt{10}$<br>$5\sqrt{5}$  | Find the area of the shaded region shown is lowest mixed radical form:<br>$5\sqrt{14}$<br>$2\sqrt{7}$  |
| 12. Simplify in lowest mixed radical form:<br>$\sqrt[3]{48}$ | Simplify in lowest mixed radical form:<br>$\sqrt[3]{54}$ | Simplify in lowest mixed radical form:<br>$\sqrt[3]{-250}$ |