

Name: _____

Date _____

Topic: Truth Values: and, or, implies, if and only if- Worksheet 1

1. If the given sentence is true,
"If 7 is odd number, then $15 + 4 = \underline{\hspace{1cm}}$."
which number could be used to fill the blank?
2. What is the truth value of the statement:
" $5 + 6 = 10$ or 8 is a prime number"?
3. What is the truth value of the statement:
"10 is even and 12 is even"?
4. What is the truth value of
"18 is an odd if and only if a triangle contains 2 sides."?
5. What is the truth value of the statement:
"6 is even and 3 is odd."?
6. What is the truth value of the statement:
"If blue is a color, then red is color."?
7. What is the truth value of the sentence
"Quadrilateral has 4 equal sides and Rectangle has four equal sides."?
8. What is the truth value of the statement:
" $6 - 3 = 3$ or 7 is odd."?
9. What is the truth value of the statement:
"17 is a prime number and 8 is odd."?
10. What is the truth value of the sentences
"14 is even and 10 is even"?



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Topic: Truth Values: and, or, implies, if and only if- Worksheet 1 **ANSWERS**

1. **19**
2. **False**
3. **True**
4. **True**
5. **True**
6. **True**
7. **False**
8. **True**
9. **False**
10. **True**



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Topic: Truth Values: and, or, implies, if and only if- Worksheet 2

1. If the given sentence is true,
"If 3 is odd number, then $11 + 2 = \underline{\hspace{1cm}}$."
which number could be used to fill the blank?
2. What is the truth value of the statement:
" $7 + 4 = 11$ or 13 is a prime number"?
3. What is the truth value of the statement:
"8 is even and 2 is even"?
4. What is the truth value of
"16 is an odd if and only if a triangle contains 3 sides."?
5. What is the truth value of the statement:
"8 is even and 5 is odd."?
6. What is the truth value of the statement:
"If pink is a color, then black is color."?
7. What is the truth value of the sentence
"Quadrilateral has 4 unequal sides or Square has four equal sides."?
8. What is the truth value of the statement:
" $9 - 2 = 7$ or 11 is odd."?
9. What is the truth value of the statement:
"23 is a prime number and 12 is odd."?
10. What is the truth value of the sentences
"18 is even and 8 is even"?



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Topic: Truth Values: and, or, implies, if and only if- Worksheet 2 **ANSWERS**

1. **13**
2. **True**
3. **True**
4. **False**
5. **True**
6. **True**
7. **True**
8. **True**
9. **False**
10. **True**



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Topic: Truth Values: and, or, implies, if and only if- Worksheet 3

1. If the given sentence is false,
"If 9 is an even number, then $17 + 4 = \underline{\hspace{1cm}}$."
which number could be used to fill the blank?
2. What is the truth value of the statement:
" $11 + 2 = 13$ or 7 is a prime number"?
3. What is the truth value of the statement:
"16 is even and 8 is even"?
4. What is the truth value of
"12 is an odd number if and only if a triangle contains 3 sides."?
5. What is the truth value of the statement:
"20 is even and 11 is odd."?
6. What is the truth value of the statement:
"If grey is a color, then white is color."?
7. What is the truth value of the sentence
"All Quadrilaterals has 4 equal sides and Square has four equal sides."?
8. What is the truth value of the statement:
" $23 - 9 = 13$ or 3 is odd."?
9. What is the truth value of the statement:
"17 is a prime number and 19 is odd."?
10. What is the truth value of the sentences
"16 is even and 6 is even"?



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Topic: Truth Values: and, or, implies, if and only if- Worksheet 3 **ANSWERS**

1. **21**
2. **True**
3. **True**
4. **False**
5. **True**
6. **True**
7. **False**
8. **True**
9. **True**
10. **True**



Name: _____

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Topic: Truth Values: and, or, implies, if and only if- Worksheet 4

1. If the given sentence is true,
"If 17 is odd number, then $15 + 8 = \underline{\hspace{1cm}}$."
which number could be used to fill the blank?
2. What is the truth value of the statement:
" $19 + 4 = 23$ or 17 is a prime number"?
3. What is the truth value of the statement:
"22 is even and 16 is even"?
4. What is the truth value of
"18 is an odd number if and only if a triangle contains 3 sides."?
5. What is the truth value of the statement:
"24 is even and 3 is odd."?
6. What is the truth value of the statement:
"If yellow is a color, then brown is color."?
7. What is the truth value of the sentence
"Quadrilateral has 4 unequal sides or Rectangle has two equal sides."?
8. What is the truth value of the statement:
" $25 - 8 = 17$ or 5 is odd."?
9. What is the truth value of the statement:
"13 is a prime number and 9 is odd."?
10. What is the truth value of the sentences
"32 is even and 84 is even"?



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Topic: Truth Values: and, or, implies, if and only if- Worksheet 4 **ANSWERS**

1. **23**
2. **True**
3. **True**
4. **False**
5. **True**
6. **True**
7. **True**
8. **True**
9. **True**
10. **True**



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Topic: Truth Values: and, or, implies, if and only if- Worksheet 5

1. If the given sentence is true,
"If 27 is odd number, then $30 + 7 = \underline{\hspace{1cm}}$."
which number could be used to fill the blank?
2. What is the truth value of the statement:
"38 + 8 = 46 or 31 is a prime number"?
3. What is the truth value of the statement:
"40 is even and 36 is even"?
4. What is the truth value of
"42 is an odd if and only if a triangle contains 3 sides."?
5. What is the truth value of the statement:
"38 is even and 27 is odd."?
6. What is the truth value of the statement:
"If orange is a color, then green is color."?
7. What is the truth value of the sentence
"Square has 4 unequal sides and Rectangle has four equal sides."?
8. What is the truth value of the statement:
"35 - 16 = 19 or 1 is odd."?
9. What is the truth value of the statement:
"5 is a prime number and 23 is odd."?
10. What is the truth value of the sentences
"36 is even and 86 is even"?



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Topic: Truth Values: and, or, implies, if and only if- Worksheet 5 **ANSWERS**

1. **37**
2. **True**
3. **True**
4. **False**
5. **True**
6. **True**
7. **False**
8. **True**
9. **True**
10. **True**

