



1. Which of the following are true?

- a)  $10 - 12 = 12 - 10$
- b)  $2 \times 5 = 5 \times 2$
- c)  $5 + 10 = 10 + 5$
- d)  $12 \div 2 = 2 \div 12$

(i) {a,b} (ii) {b,c} (iii) {d,c} (iv) {a,d,b} (v) {a,c,b}

2. Which of the following are true?

- a)  $7 - (11 - 18) = (7 - 11) - 18$
- b)  $18 \times (2 \times 7) = (18 \times 2) \times 7$
- c)  $2 + (7 + 11) = (2 + 7) + 11$
- d)  $11 \div (18 \div 2) = (11 \div 18) \div 2$

(i) {d,c} (ii) {a,c,b} (iii) {a,d,b} (iv) {a,b} (v) {b,c}

3. Which of the following are true?

- a)  $8 \times (9 - 17) = (8 \times 9) - (8 \times 17)$
- b)  $11 \times (8 + 9) = (11 \times 8) + (11 \times 9)$
- c)  $17 \div (11 + 8) = (17 \div 11) + (17 \div 8)$
- d)  $9 - (17 \times 11) = (9 - 17) \times (9 - 11)$

(i) {c,d,a} (ii) {c,a} (iii) {c,b,a} (iv) {a,b} (v) {d,b}

4. Which of the following are true?

- a)  $14 + 9 = 9 + 14$
- b)  $9 - 16 = 16 - 9$
- c)  $16 \div 11 = 11 \div 16$
- d)  $11 \times 14 = 14 \times 11$

(i) {a,d} (ii) {b,a} (iii) {b,c,a} (iv) {c,d} (v) {b,d,a}

5. Which of the following are true?

- a)  $2 \div (13 \div 5) = (2 \div 13) \div 5$
- b)  $8 - (2 - 13) = (8 - 2) - 13$
- c)  $13 \times (5 \times 8) = (13 \times 5) \times 8$
- d)  $5 + (8 + 2) = (5 + 8) + 2$

(i) {a,c} (ii) {b,d} (iii) {a,d,c} (iv) {c,d} (v) {a,b,c}

6. Which of the following are true?

a)  $12 - (15 \times 8) = (12 - 15) \times (12 - 8)$

b)  $8 \times (6 + 12) = (8 \times 6) + (8 \times 12)$

c)  $15 \div (8 + 6) = (15 \div 8) + (15 \div 6)$

d)  $6 \times (12 - 15) = (6 \times 12) - (6 \times 15)$

(i) {a,c,b} (ii) {b,d} (iii) {a,b} (iv) {a,d,b} (v) {c,d}

7. Which of the following are true?

a) integers are closed under subtraction

b) integers are closed under division

c) integers are closed under multiplication

d) integers are closed under addition

(i) {b,a,c} (ii) {b,d} (iii) {a,c,d} (iv) {b,c} (v) {b,a}

## Assignment Key

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1) (ii)

2) (v)

3) (iv)

4) (i)

5) (iv)

6) (ii)

7) (iii)