



1. Which of the following are true?

- a)  $3+9=9+3$
  - b)  $13\times 3=3\times 13$
  - c)  $8\div 13=13\div 8$
  - d)  $9-8=8-9$
- (i) {d,b} (ii) {c,a} (iii) {c,b,a} (iv) {c,d,a} (v) {a,b}

2. Which of the following are true?

- a)  $14\div(15\div 12)=(14\div 15)\div 12$
  - b)  $15\times(12\times 16)=(15\times 12)\times 16$
  - c)  $12+(16+14)=(12+16)+14$
  - d)  $16-(14-15)=(16-14)-15$
- (i) {d,c} (ii) {a,d,b} (iii) {b,c} (iv) {a,c,b} (v) {a,b}

3. Which of the following are true?

- a)  $18\times(13-8)=(18\times 13)-(18\times 8)$
  - b)  $8\div(15+18)=(8\div 15)+(8\div 18)$
  - c)  $13-(8\times 15)=(13-8)\times(13-15)$
  - d)  $15\times(18+13)=(15\times 18)+(15\times 13)$
- (i) {a,d} (ii) {c,d} (iii) {b,d,a} (iv) {b,a} (v) {b,c,a}

4. Which of the following are true?

- a) integers are closed under division
  - b) integers are closed under multiplication
  - c) integers are closed under addition
  - d) integers are closed under subtraction
- (i) {a,b} (ii) {a,c} (iii) {a,b,c} (iv) {b,c,d} (v) {a,d}

5. Which of the following are true?

- a)  $14+6=6+14$
  - b)  $15\div 8=8\div 15$
  - c)  $6-15=15-6$
  - d)  $8\times 14=14\times 8$
- (i) {b,c,a} (ii) {b,a} (iii) {b,d,a} (iv) {c,d} (v) {a,d}

6. Which of the following are true?

- a)  $8 \times (14 \times 4) = (8 \times 14) \times 4$
  - b)  $4 - (9 - 8) = (4 - 9) - 8$
  - c)  $9 \div (8 \div 14) = (9 \div 8) \div 14$
  - d)  $14 + (4 + 9) = (14 + 4) + 9$
- (i) {c,d} (ii) {b,c,a} (iii) {b,a} (iv) {a,d} (v) {b,d,a}

7. Which of the following are true?

- a)  $5 - (16 \times 12) = (5 - 16) \times (5 - 12)$
  - b)  $12 \times (18 + 5) = (12 \times 18) + (12 \times 5)$
  - c)  $18 \times (5 - 16) = (18 \times 5) - (18 \times 16)$
  - d)  $16 \div (12 + 18) = (16 \div 12) + (16 \div 18)$
- (i) {a,d,b} (ii) {d,c} (iii) {a,c,b} (iv) {b,c} (v) {a,b}

## Assignment Key

1) (v)

2) (iii)

3) (i)

4) (iv)

5) (v)

6) (iv)

7) (iv)