



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

1) $3(10 + 5B)$

Answers

1. _____

2) $2(9 + 2C)$

2. _____

3) $4(2 + 3D)$

3. _____

4) $5(8 + 4E)$

4. _____

5) $F + F + F + F + F$

5. _____

6) $G + G + G + G + G + G + G + G + G$

6. _____

7) $36H + 12$

7. _____

8) $5 + 10I + 2I + 9$

8. _____

9) $48 + 12J$

9. _____

10) $3(3K + 8)$

10. _____

11) $6(7 + 2L)$

11. _____

12) $36M + 81$

12. _____

13) $2(8N + 3)$

13. _____

14) $3(4O + 4)$

14. _____

15) $90P + 40$

15. _____

16) $60Q + 70$

16. _____

17) $72 + 72R$

17. _____

18) $56S + 21$

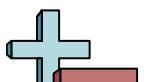
18. _____

19) $70T + 63$

19. _____

20) $6 + 8 + 3U + 3U$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $3(10 + 5B)$

Answers

1. **30 + 15B**

2) $2(9 + 2C)$

2. **18 + 4C**

3) $4(2 + 3D)$

3. **8 + 12D**

4) $5(8 + 4E)$

4. **40 + 20E**

5) $F + F + F + F + F$

5. **5F**

6) $G + G + G + G + G + G + G + G$

6. **9G**

7) $36H + 12$

7. **12(3H + 1)**

8) $5 + 10I + 2I + 9$

8. **12I+14**

9) $48 + 12J$

9. **12(4 + 1J)**

10) $3(3K + 8)$

10. **9K + 24**

11) $6(7 + 2L)$

11. **42 + 12L**

12) $36M + 81$

12. **9(4M + 9)**

13) $2(8N + 3)$

13. **16N + 6**

14) $3(4O + 4)$

14. **12O + 12**

15) $90P + 40$

15. **10(9P + 4)**

16) $60Q + 70$

16. **10(6Q + 7)**

17) $72 + 72R$

17. **72(1 + 1R)**

18) $56S + 21$

18. **7(8S + 3)**

19) $70T + 63$

19. **7(10T + 9)**

20) $6 + 8 + 3U + 3U$

20. **6U+14**



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

1) $5B + 8 + 9 + 2B$

Answers

1. _____

2) $5C + 8C + 7 + 4$

2. _____

3) $8(8D + 4)$

3. _____

4) $E + E + E + E + E$

4. _____

5) $12F + 20$

5. _____

6) $24G + 24$

6. _____

7) $12 + 16H$

7. _____

8) $20 + 8I$

8. _____

9) $15J + 24$

9. _____

10) $8K + 4$

10. _____

11) $10 + 4L$

11. _____

12) $7(9 + 10M)$

12. _____

13) $N + N + N + N + N + N + N$

13. _____

14) $12 + 14O$

14. _____

15) $2(4 + 5P)$

15. _____

16) $7Q + 7 + 5 + 2Q$

16. _____

17) $24 + 24R$

17. _____

18) $35S + 35$

18. _____

19) $70T + 21$

19. _____

20) $42U + 49$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $5B + 8 + 9 + 2B$

Answers

1. **7B+17**

2) $5C + 8C + 7 + 4$

2. **13C+11**

3) $8(8D + 4)$

3. **64D + 32**

4) $E + E + E + E + E$

4. **5E**

5) $12F + 20$

5. **4(3F + 5)**

6) $24G + 24$

6. **24(1G + 1)**

7) $12 + 16H$

7. **4(3 + 4H)**

8) $20 + 8I$

8. **4(5 + 2I)**

9) $15J + 24$

9. **3(5J + 8)**

10) $8K + 4$

10. **4(2K + 1)**

11) $10 + 4L$

11. **2(5 + 2L)**

12) $7(9 + 10M)$

12. **63 + 70M**

13) $N + N + N + N + N + N + N$

13. **7N**

14) $12 + 14O$

14. **2(6 + 7O)**

15) $2(4 + 5P)$

15. **8 + 10P**

16) $7Q + 7 + 5 + 2Q$

16. **9Q+12**

17) $24 + 24R$

17. **24(1 + 1R)**

18) $35S + 35$

18. **35(1S + 1)**

19) $70T + 21$

19. **7(10T + 3)**

20) $42U + 49$

20. **7(6U + 7)**



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

Answers

1) $10(7 + 7B)$

1. _____

2) $C + C + C + C + C + C$

2. _____

3) $18D + 9$

3. _____

4) $E + E + E + E + E + E + E + E$

4. _____

5) $3 + 3F + 3 + 6F$

5. _____

6) $G + G + G + G + G + G + G + G + G$

6. _____

7) $6(4 + 7H)$

7. _____

8) $60I + 90$

8. _____

9) $J + J + J + J + J + J$

9. _____

10) $K + K + K + K + K + K + K$

10. _____

11) $9 + 15L$

11. _____

12) $M + M + M + M + M$

12. _____

13) $45 + 72N$

13. _____

14) $4O + 3 + 8O + 5$

14. _____

15) $56 + 72P$

15. _____

16) $7(3Q + 5)$

16. _____

17) $R + R + R + R + R + R + R + R$

17. _____

18) $3(5S + 8)$

18. _____

19) $7 + 3 + 7T + 8T$

19. _____

20) $6 + 7 + 4U + 6U$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $10(7 + 7B)$

Answers

1. **70 + 70B**

2) $C + C + C + C + C + C$

2. **6C**

3) $18D + 9$

3. **9(2D + 1)**

4) $E + E + E + E + E + E + E + E$

4. **9E**

5) $3 + 3F + 3 + 6F$

5. **9F+6**

6) $G + G + G + G + G + G + G + G + G$

6. **9G**

7) $6(4 + 7H)$

7. **24 + 42H**

8) $60I + 90$

8. **30(2I + 3)**

9) $J + J + J + J + J + J$

9. **6J**

10) $K + K + K + K + K + K + K$

10. **7K**

11) $9 + 15L$

11. **3(3 + 5L)**

12) $M + M + M + M + M$

12. **5M**

13) $45 + 72N$

13. **9(5 + 8N)**

14) $4O + 3 + 8O + 5$

14. **12O+8**

15) $56 + 72P$

15. **8(7 + 9P)**

16) $7(3Q + 5)$

16. **21Q + 35**

17) $R + R + R + R + R + R + R + R$

17. **8R**

18) $3(5S + 8)$

18. **15S + 24**

19) $7 + 3 + 7T + 8T$

19. **15T+10**

20) $6 + 7 + 4U + 6U$

20. **10U+13**



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

1) $3(4 + 2B)$

2) $30C + 20$

3) $8(7D + 2)$

4) $20E + 16$

5) $6(7F + 7)$

6) $G + G + G + G + G$

7) $2(6H + 5)$

8) $60 + 42I$

9) $36 + 28J$

10) $K + K + K + K + K + K + K$

11) $4(3 + 8L)$

12) $4(8M + 7)$

13) $2N + 8N + 3 + 9$

14) $20O + 10$

15) $8(6P + 9)$

16) $Q + Q + Q + Q + Q + Q$

17) $2(6R + 4)$

18) $54S + 42$

19) $T + T + T + T + T + T + T$

20) $8(5U + 10)$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

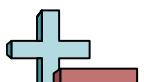
16. _____

17. _____

18. _____

19. _____

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $3(4 + 2B)$

Answers

1. **12 + 6B**

2) $30C + 20$

2. **10(3C + 2)**

3) $8(7D + 2)$

3. **56D + 16**

4) $20E + 16$

4. **4(5E + 4)**

5) $6(7F + 7)$

5. **42F + 42**

6) $G + G + G + G + G$

6. **5G**

7) $2(6H + 5)$

7. **12H + 10**

8) $60 + 42I$

8. **6(10 + 7I)**

9) $36 + 28J$

9. **4(9 + 7J)**

10) $K + K + K + K + K + K + K$

10. **7K**

11) $4(3 + 8L)$

11. **12 + 32L**

12) $4(8M + 7)$

12. **32M + 28**

13) $2N + 8N + 3 + 9$

13. **10N+12**

14) $20O + 10$

14. **10(2O + 1)**

15) $8(6P + 9)$

15. **48P + 72**

16) $Q + Q + Q + Q + Q + Q$

16. **6Q**

17) $2(6R + 4)$

17. **12R + 8**

18) $54S + 42$

18. **6(9S + 7)**

19) $T + T + T + T + T + T + T$

19. **7T**

20) $8(5U + 10)$

20. **40U + 80**



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

1) $7B + 4B + 9 + 3$

Answers

1. _____

2) $3C + 8 + 5 + 7C$

2. _____

3) $30D + 24$

3. _____

4) $12 + 10E$

4. _____

5) $F + F + F + F$

5. _____

6) $2(3 + 5G)$

6. _____

7) $18 + 12H$

7. _____

8) $28 + 63I$

8. _____

9) $5(6J + 8)$

9. _____

10) $K + K + K + K + K + K + K + K + K$

10. _____

11) $L + L + L + L$

11. _____

12) $90 + 100M$

12. _____

13) $30N + 30$

13. _____

14) $8 + 8O + 7O + 2$

14. _____

15) $54 + 18P$

15. _____

16) $3 + 3Q + 9Q + 6$

16. _____

17) $5(8 + 6R)$

17. _____

18) $S + S + S + S$

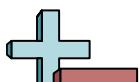
18. _____

19) $6T + 9T + 10 + 7$

19. _____

20) $10 + 20U$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $7B + 4B + 9 + 3$

Answers

1. **11B+12**

2) $3C + 8 + 5 + 7C$

2. **10C+13**

3) $30D + 24$

3. **6(5D + 4)**

4) $12 + 10E$

4. **2(6 + 5E)**

5) $F + F + F + F$

5. **4F**

6) $2(3 + 5G)$

6. **6 + 10G**

7) $18 + 12H$

7. **6(3 + 2H)**

8) $28 + 63I$

8. **7(4 + 9I)**

9) $5(6J + 8)$

9. **30J + 40**

10) $K + K + K + K + K + K + K + K$

10. **9K**

11) $L + L + L + L$

11. **4L**

12) $90 + 100M$

12. **10(9 + 10M)**

13) $30N + 30$

13. **30(1N + 1)**

14) $8 + 8O + 7O + 2$

14. **15O+10**

15) $54 + 18P$

15. **18(3 + 1P)**

16) $3 + 3Q + 9Q + 6$

16. **12Q+9**

17) $5(8 + 6R)$

17. **40 + 30R**

18) $S + S + S + S$

18. **4S**

19) $6T + 9T + 10 + 7$

19. **15T+17**

20) $10 + 20U$

20. **10(1 + 2U)**



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

1) $30B + 24$

Answers

1. _____

2) $5 + 5 + 9C + 10C$

2. _____

3) $10 + 16D$

3. _____

4) $9 + 2E + 8 + 7E$

4. _____

5) $24F + 48$

5. _____

6) $G + G + G + G + G + G + G + G + G$

6. _____

7) $8 + 7H + 8 + 7H$

7. _____

8) $90I + 80$

8. _____

9) $6(8 + 7J)$

9. _____

10) $10 + 9K + 7K + 2$

10. _____

11) $6 + 8L + 8 + 6L$

11. _____

12) $5M + 5 + 4M + 3$

12. _____

13) $6(4N + 7)$

13. _____

14) $4(4O + 10)$

14. _____

15) $5(6P + 5)$

15. _____

16) $2(4Q + 6)$

16. _____

17) $10(7R + 4)$

17. _____

18) $2(10S + 7)$

18. _____

19) $4(5 + 7T)$

19. _____

20) $2U + 2U + 2 + 5$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $30B + 24$

Answers

1. **$6(5B + 4)$**

2) $5 + 5 + 9C + 10C$

2. **$19C + 10$**

3) $10 + 16D$

3. **$2(5 + 8D)$**

4) $9 + 2E + 8 + 7E$

4. **$9E + 17$**

5) $24F + 48$

5. **$24(1F + 2)$**

6) $G + G + G + G + G + G + G + G + G$

6. **$9G$**

7) $8 + 7H + 8 + 7H$

7. **$14H + 16$**

8) $90I + 80$

8. **$10(9I + 8)$**

9) $6(8 + 7J)$

9. **$48 + 42J$**

10) $10 + 9K + 7K + 2$

10. **$16K + 12$**

11) $6 + 8L + 8 + 6L$

11. **$14L + 14$**

12) $5M + 5 + 4M + 3$

12. **$9M + 8$**

13) $6(4N + 7)$

13. **$24N + 42$**

14) $4(4O + 10)$

14. **$16O + 40$**

15) $5(6P + 5)$

15. **$30P + 25$**

16) $2(4Q + 6)$

16. **$8Q + 12$**

17) $10(7R + 4)$

17. **$70R + 40$**

18) $2(10S + 7)$

18. **$20S + 14$**

19) $4(5 + 7T)$

19. **$20 + 28T$**

20) $2U + 2U + 2 + 5$

20. **$4U + 7$**



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

1) $6(3B + 3)$

Answers

1. _____

2) $C + C + C$

2. _____

3) $12 + 20D$

3. _____

4) $8 + 7E + 5 + 8E$

4. _____

5) $6 + 8F$

5. _____

6) $G + G + G + G + G + G + G + G + G$

6. _____

7) $H + H + H + H + H + H + H + H$

7. _____

8) $9(3I + 2)$

8. _____

9) $9(6 + 4J)$

9. _____

10) $K + K + K + K + K + K$

10. _____

11) $L + L + L$

11. _____

12) $4M + 7M + 9 + 10$

12. _____

13) $3(5 + 4N)$

13. _____

14) $20 + 16O$

14. _____

15) $6(3P + 3)$

15. _____

16) $60 + 18Q$

16. _____

17) $3(7R + 5)$

17. _____

18) $54 + 36S$

18. _____

19) $48T + 12$

19. _____

20) $U + U + U + U + U + U$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $6(3B + 3)$

Answers

1. **18B + 18**

2) $C + C + C$

2. **3C**

3) $12 + 20D$

3. **4(3 + 5D)**

4) $8 + 7E + 5 + 8E$

4. **15E+13**

5) $6 + 8F$

5. **2(3 + 4F)**

6) $G + G + G + G + G + G + G + G + G$

6. **9G**

7) $H + H + H + H + H + H + H + H$

7. **7H**

8) $9(3I + 2)$

8. **27I + 18**

9) $9(6 + 4J)$

9. **54 + 36J**

10) $K + K + K + K + K + K$

10. **6K**

11) $L + L + L$

11. **3L**

12) $4M + 7M + 9 + 10$

12. **11M+19**

13) $3(5 + 4N)$

13. **15 + 12N**

14) $20 + 16O$

14. **4(5 + 4O)**

15) $6(3P + 3)$

15. **18P + 18**

16) $60 + 18Q$

16. **6(10 + 3Q)**

17) $3(7R + 5)$

17. **21R + 15**

18) $54 + 36S$

18. **18(3 + 2S)**

19) $48T + 12$

19. **12(4T + 1)**

20) $U + U + U + U + U + U$

20. **6U**



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

1) $10B + 7 + 3B + 5$

Answers

1. _____

2) $C + C + C + C + C + C + C$

2. _____

3) $D + D + D + D + D + D + D$

3. _____

4) $E + E + E + E + E + E$

4. _____

5) $9 + 4F + 5 + 4F$

5. _____

6) $7 + 8 + 9G + 9G$

6. _____

7) $90H + 80$

7. _____

8) $8(10I + 2)$

8. _____

9) $27 + 36J$

9. _____

10) $2 + 4K + 8K + 2$

10. _____

11) $27L + 72$

11. _____

12) $2(7M + 2)$

12. _____

13) $N + N + N + N + N + N + N + N$

13. _____

14) $9(7O + 5)$

14. _____

15) $18 + 18P$

15. _____

16) $5Q + 9 + 8Q + 8$

16. _____

17) $4(4R + 5)$

17. _____

18) $7 + 8 + 6S + 7S$

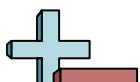
18. _____

19) $9T + 4 + 6T + 10$

19. _____

20) $2(10U + 4)$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $10B + 7 + 3B + 5$

Answers

1. **13B+12**

2) $C + C + C + C + C + C + C$

2. **7C**

3) $D + D + D + D + D + D + D$

3. **7D**

4) $E + E + E + E + E + E$

4. **6E**

5) $9 + 4F + 5 + 4F$

5. **8F+14**

6) $7 + 8 + 9G + 9G$

6. **18G+15**

7) $90H + 80$

7. **10(9H + 8)**

8) $8(10I + 2)$

8. **80I + 16**

9) $27 + 36J$

9. **9(3 + 4J)**

10) $2 + 4K + 8K + 2$

10. **12K+4**

11) $27L + 72$

11. **9(3L + 8)**

12) $2(7M + 2)$

12. **14M + 4**

13) $N + N + N + N + N + N + N + N$

13. **8N**

14) $9(7O + 5)$

14. **63O + 45**

15) $18 + 18P$

15. **18(1 + 1P)**

16) $5Q + 9 + 8Q + 8$

16. **13Q+17**

17) $4(4R + 5)$

17. **16R + 20**

18) $7 + 8 + 6S + 7S$

18. **13S+15**

19) $9T + 4 + 6T + 10$

19. **15T+14**

20) $2(10U + 4)$

20. **20U + 8**



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

1) $8 + 6B$

Answers

1. _____

2) $C + C + C + C + C + C$

2. _____

3) $D + D + D + D + D + D + D$

3. _____

4) $63 + 27E$

4. _____

5) $F + F + F + F + F + F + F$

5. _____

6) $60 + 90G$

6. _____

7) $9H + 5H + 2 + 9$

7. _____

8) $20 + 50I$

8. _____

9) $9(4 + 10J)$

9. _____

10) $K + K + K + K + K + K + K + K + K$

10. _____

11) $2 + 9 + 5L + 3L$

11. _____

12) $9(7M + 8)$

12. _____

13) $10(2N + 6)$

13. _____

14) $18O + 63$

14. _____

15) $P + P + P + P + P + P + P + P + P$

15. _____

16) $54Q + 42$

16. _____

17) $60R + 18$

17. _____

18) $S + S + S + S + S + S + S + S$

18. _____

19) $T + T + T + T + T + T + T + T$

19. _____

20) $30U + 21$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $8 + 6B$

Answers

1. **$2(4 + 3B)$**

2) $C + C + C + C + C + C$

6C

3) $D + D + D + D + D + D + D$

7D

4) $63 + 27E$

$9(7 + 3E)$

5) $F + F + F + F + F + F + F$

7F

6) $60 + 90G$

$30(2 + 3G)$

7) $9H + 5H + 2 + 9$

$14H+11$

8) $20 + 50I$

$10(2 + 5I)$

9) $9(4 + 10J)$

$36 + 90J$

10) $K + K + K + K + K + K + K + K$

9K

11) $2 + 9 + 5L + 3L$

$8L+11$

12) $9(7M + 8)$

$63M + 72$

13) $10(2N + 6)$

$20N + 60$

14) $18O + 63$

$9(2O + 7)$

15) $P + P + P + P + P + P + P + P$

9P

16) $54Q + 42$

$6(9Q + 7)$

17) $60R + 18$

$6(10R + 3)$

18) $S + S + S + S + S + S + S + S$

8S

19) $T + T + T + T + T + T + T + T$

8T

20) $30U + 21$

$3(10U + 7)$



Applying Properties of Operations

Name: _____

Apply the distributive property to produce an equivalent expression.

Answers

1) $36B + 63$

1. _____

2) $5(2 + 7C)$

2. _____

3) $2(7D + 3)$

3. _____

4) $4(6E + 7)$

4. _____

5) $F + F + F + F$

5. _____

6) $G + G + G + G + G + G$

6. _____

7) $9H + 7 + 7 + 8H$

7. _____

8) $3I + 9I + 5 + 10$

8. _____

9) $70J + 42$

9. _____

10) $8(9K + 5)$

10. _____

11) $L + L + L + L + L$

11. _____

12) $24 + 40M$

12. _____

13) $2(7N + 5)$

13. _____

14) $O + O + O + O + O$

14. _____

15) $3(9P + 3)$

15. _____

16) $27Q + 72$

16. _____

17) $R + R + R + R + R + R + R$

17. _____

18) $54 + 54S$

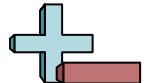
18. _____

19) $8(5T + 2)$

19. _____

20) $21 + 24U$

20. _____



Applying Properties of Operations

Name: **Answer Key**

Apply the distributive property to produce an equivalent expression.

1) $36B + 63$

Answers

1. $9(4B + 7)$

2) $5(2 + 7C)$

2. $10 + 35C$

3) $2(7D + 3)$

3. $14D + 6$

4) $4(6E + 7)$

4. $24E + 28$

5) $F + F + F + F$

5. $4F$

6) $G + G + G + G + G + G$

6. $6G$

7) $9H + 7 + 7 + 8H$

7. $17H + 14$

8) $3I + 9I + 5 + 10$

8. $12I + 15$

9) $70J + 42$

9. $14(5J + 3)$

10) $8(9K + 5)$

10. $72K + 40$

11) $L + L + L + L + L$

11. $5L$

12) $24 + 40M$

12. $8(3 + 5M)$

13) $2(7N + 5)$

13. $14N + 10$

14) $O + O + O + O + O$

14. $5O$

15) $3(9P + 3)$

15. $27P + 9$

16) $27Q + 72$

16. $9(3Q + 8)$

17) $R + R + R + R + R + R + R$

17. $7R$

18) $54 + 54S$

18. $54(1 + 1S)$

19) $8(5T + 2)$

19. $40T + 16$

20) $21 + 24U$

20. $3(7 + 8U)$

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0