

Brackets Answers

Ex 1

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|---------------|---------------|---------------|----------------------|--------------------|---------------|
| 1. $72a$ | 2. $9b$ | 3. $8c$ | 4. $11d$ | 5. $2e$ | 6. $2f$ |
| 7. $2x$ | 8. $4y$ | 9. z | 10. $5x$ | 11. $2y$ | 12. 0 |
| 13. $7a + 6b$ | 14. $9x + 7y$ | 15. $6m + 9n$ | 16. $9a + 2b$ | 17. $3x + 3y$ | 18. $p + 3q$ |
| 19. $y + 3z$ | 20. $5s + 4t$ | 21. 0 | 22. 0 | 23. $m + 4n$ | 24. $2y + 5z$ |
| 25. $2e$ | 26. $3b$ | 27. $5x + 2y$ | 28. $5a + 3c$ | 29. $a + c$ | 30. $4n + p$ |
| 31. $-2s$ | 32. $4r$ | 33. $8y + 5z$ | 34. $3a + 10b + 15c$ | 35. $11e + 3f + g$ | 36. 0 |

Ex 2

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|----------------|-----------------|-----------------|
| 1. $6x + 8$ | 2. $8x + 12$ | 3. $20x - 15$ |
| 4. $20 + 4y$ | 5. $10 + 6y$ | 6. $8 - 4y$ |
| 7. $12m + 6n$ | 8. $2p - 8q$ | 9. $3b - 15a$ |
| 10. $2y + 4z$ | 11. $6r - 4s$ | 12. $6p - 9q$ |
| 13. $21s + 3u$ | 14. $8a - 12b$ | 15. $12n - 30m$ |
| 16. $8a - 12b$ | 17. $5y - 6x$ | 18. $15f - 6e$ |
| 19. $6m + 12n$ | 20. $24m + 40r$ | 21. $5a + 35b$ |
| 22. $3q - 12p$ | 23. $8b - 20c$ | 24. $8z - 20y$ |

Ex 3

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|-----------------------------------|----------------------------------|------------------------------------|
| 1. $6x + 8 + 3$
$= 6x + 11$ | 2. $6x + 8 - 5$
$= 6x + 3$ | 3. $20 + 15y + 3$
$= 23 + 15y$ |
| 4. $20x - 12 - 1$
$= 20x - 13$ | 5. $2x + 6y + 5x$
$= 7x + 6y$ | 6. $8x + 4y + 2y$
$= 8x + 6y$ |
| 7. $12m + 12 - 3m$
$= 9m + 12$ | 8. $5 + 10q + 2q$
$= 5 + 12q$ | 9. $3b - 15 - 7b$
$= -4b - 15$ |
| 10. $2y + 4z + 4y$
$= 6y + 4z$ | 11. $6r + 4s - 6r$
$= 4s$ | 12. $5p + 10q - 4q$
$= 5p + 6q$ |

$$13. \begin{aligned} 21s + 3u + 6u \\ = 21s + 8u \end{aligned}$$

$$16. \begin{aligned} 4s + 3t + 2t - 2s \\ = 2s + 5t \end{aligned}$$

$$18. \begin{aligned} 6e + 2f + 15f - 6e \\ = 17f \end{aligned}$$

$$20. \begin{aligned} 24m + 40k - 14m + 2k \\ = 10m + 42k \end{aligned}$$

$$22. \begin{aligned} 12p + 6q + 3q - 4 \\ = 12p + 9q - 4 \end{aligned}$$

$$24. \begin{aligned} 12x + 20y - 4x - 4y \\ = 8x + 16y \end{aligned}$$

$$26. \begin{aligned} 4 - 10y - 15 \\ = -11 - 10y \end{aligned}$$

$$28. \begin{aligned} 10 + 6x - 3 \\ = 7 + 6x \end{aligned}$$

$$30. \begin{aligned} 10 - 10a - 15b + 12 \\ = 22 - 10a - 15b \end{aligned}$$

$$14. \begin{aligned} 5b - 5a - 2a \\ = 5b - 7a \end{aligned}$$

$$17. \begin{aligned} 8x + 4y + 5y - 6x \\ = 3x + 9y \end{aligned}$$

$$19. \begin{aligned} 6m + 12n - 12n - 6m \\ = 0 \end{aligned}$$

$$21. \begin{aligned} 5a + 35b - 35b + 5a \\ = 10a \end{aligned}$$

$$23. \begin{aligned} 6a + 9b + 5a - 10b \\ = 11a - b \end{aligned}$$

$$25. \begin{aligned} 3 - 15x - 20 \\ = -17 - 15x \end{aligned}$$

$$27. \begin{aligned} 3x - 4x - 8 \\ = -x - 8 \end{aligned}$$

$$29. \begin{aligned} 2y + 9y - 12 \\ = 11y - 12 \end{aligned}$$

$$15. \begin{aligned} 30m + 12n \\ - 12m + 7n \\ = 18m + 19n \end{aligned}$$

2. Find

triang

(a) P(-

(b) D(-

(c) L(-

(d) Q(-

In each of the
check that the
the centre of
angle.

circle is called
centre.