

**A KEY TO THE
ELEMENTARY
TREATISE ON ALGEBRA**

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A Key to the Elementary Treatise on Algebra by Thomas Sherwin

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THOMAS SHERWIN

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TREATISE ON ALGEBRA**

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TO THE

ELEMENTARY TREATISE

ON

ALGEBRA.

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KEY.

[In the first edition of the Algebra, the Articles are numbered erroneously from the commencement of Section XXVI. To make that edition correspond with the Key, increase by 2 the number of each Article, commencing with the Section specified.]

SECTION I.

ART. 4.

1. Performed.
2. Horse \$100. Saddle \$10.
3. 6 bushels of each.
4. 11 of each.
5. 5 melons; 10 pears; 30 peaches.
6. 15 days. Man \$20; boy \$10.
7. 105, 210, and 315.
8. 25, 35, and 40.
9. 10 hours. One goes 80 miles, the other 70 miles.
10. 1st 8, 2d 16, 3d 24 guineas.
11. Wife \$36000; elder son \$27000; younger son \$18000.
12. 120 cavalry; 360 artillerymen; 720 infantry.
13. A 8 days, 72 rods; B 16 days, 112 rods; C 80 days, 400 rods.
14. 8 yds, 16 yds, and 24 yds respectively.
15. Sheep \$2; calf \$4; cow \$20.
16. Greater 14 galls; less 7 galls.
17. Beef 10 lbs; mutton 20 lbs.
18. 32 of each.
19. 80 guineas; 240 crowns.
20. 10, 20, 30, 60 and 30 miles, on the respective days.

21. 8 bushels of each.
22. Cows \$25, oxen \$50 each.

SECTION II.

ART. 7.

1. Performed.
2. 1st \$23000; 2d \$33000.
3. $73\frac{1}{2}$ and $156\frac{1}{2}$ miles.
4. A's 15, B's 35, C's 50 years.
5. 1st 8 lbs; 2d 22 lbs; 3d 30 lbs; 4th 60 lbs.
6. 6, 8, 10, 12, and 14 years respectively.
7. Black \$30; green \$32; blue \$35.
8. A's 30, B's 20 years.
9. Each daughter \$1000; younger son \$2000; elder son \$5000.
10. Performed.

ART. 9.

1. 493 and 406 votes respectively.
 2. 5 men; 20 boys; 180 girls.
 3. 150 cavalry; 450 riflemen; 1700 infantry.
 4. A \$2750; B \$8250; C \$22000; D \$32000.
 5. A \$377; B \$7; C \$107.
 6. 10 years in France; 60 in England; 10 in America.
 7. 1500 English; 900 Irish; 500 French.
 8. 50 eagles; 90 half-eagles; 250 dollars.
 9. Broadcloth 50; cassimere 144; silk 288 yards.
 10. \$2000.
 11. A \$10000; B \$10600; C \$20800; D \$20300; E \$30800.
 12. 80 oxen; 215 cows; 215 calves; 395 sheep.
 13. 20 students; 55 merchants; 65 officers.
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SECTION III.

ART. 11.

1. Performed.
2. Finer \$6; coarser \$4 per yard.
3. A's 50; B's 40 years.
4. 20 each.
5. *Sum distributed 153d. Eldest 60d.; 2d 42d.; 3d 30d.; 4th 21d.
6. 1st 10s.; 2d 7s.; 3d 8s.; 4th 5s.; 5th 3s.; 6th 2s.
7. Smaller 40 galls.; larger 80 galls.
8. Wheat 8s.; rye 6s. per bushel.
9. 45 scholars in all. He wished to place 7 in a row.
10. 10 lbs; 95 cents.
11. 10 shillings.
12. \$60.
13. 22 years.
14. 12 years ago.
15. 150 sheep.
16. 8 days; 720 miles from the starting place.
17. Horse \$200; chaise \$275.
18. Wheat 8s.; oats 3s.
19. \$1000.
20. 125 miles.

SECTION IV.

ART. 12.

- 1st, 2d, 3d, performed.
4. 60 years old. 20 years in Germany; 15 in France; 24 in England.
5. Whole estate \$5040. He owed his creditors respectively \$630, \$720, and \$672.

6. Whole mixture 32 oz. $12\frac{3}{4}$ oz. gold; 16 oz. silver; $3\frac{1}{2}$ oz. copper.

7. Whole estate \$22500. Wife's portion \$6500; eldest son's \$6500; 2d son's \$5750; youngest son's \$3750.

8. 80 years.

9. A's 40; B's 30 years.

10. 30 inches.

11. 72.

12. \$150.

13. \$75.

14. 1st 30 cents; 2d and 3d 15 cents each.

15. Whole number 30. The 1st had 10; 2d 6; 3d 4; 4th 10

16. 1st horse \$100; 2d horse \$150; chaise \$300.

17. Income \$1200; he spends \$650.

18. 45 sheep.

19. 1st £56; 2d £35; 3d £7.

20. 280 miles in all. 40 miles 1st day; 56 2d day; 70 3d day.

SECTION V.

ART. 13.

1st, 2d, 3d, performed.

4. A \$300; B \$200.

5. Man 40; woman 30 years.

6. Man's age 50; woman's 45 years

7. £50.

8. From A to B 40 miles, from B to C 60 miles; from A to C 100 miles.

9. 1st 105 yds; 2d 120 yds; 3d 135 yds.

10. Each has £150.

11. 100 yards.

12. Each has \$140.

13. A \$350; B \$400; C \$475.

14. 30 cows; 60 sheep.

15. \$40.
16. \$1000.
17. Cider \$4; beer \$6 per barrel.
18. 54 and 60.
19. Shorter 20 rods; longer 40 rods.
20. Chaise \$233 $\frac{1}{4}$; horse \$166 $\frac{3}{4}$.
21. \$100.
22. 1st car 18 miles; 2d car 20 miles per hour.
23. \$150.
24. \$110.
25. 139.

SECTION VI.

ART. 15.

1. Horse \$150; chaise \$250.
2. 80 gallons.
3. Greater 35; less 25.
4. Performed.
5. 20 tons.
6. \$72.
7. Greater 75; less 72.
8. 100 gallons each.
9. 90 eggs.
10. Time past 40 years.
11. Lower, middle and upper parts respectively, 12, 16 and 20 feet. Whole pole, 48 feet.
12. 20.

SECTION VII.

ART. 17.

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|---------------------|--------------------|
| 1. 14 <i>abc m.</i> | 3. 21 <i>abxy.</i> |
| 2. 845 <i>c.</i> | 4. 24 <i>apqr.</i> |