

Grade 8 Ratios & Proportions Mixed Review

Ratios & Proportions • Grade 8 • Mixed Review • Set C • CCSS 8.EE.5

Name: _____

Date: _____

Solve each problem. Read carefully — the problems change shape as you go.

1. 132 miles in 12 hours = ____ miles per hour

2. $y = kx$ and $y = 36$ when $x = 9$. Find k .

3. On a map, 4 cm represents 32 km. What distance does 6 cm represent?

4. Solve: $3/x = 15/25$

5. Two similar triangles have corresponding sides 12 and 36. If another side of the small triangle is 12, what is the matching side of the large triangle?

6. 180 pages in 5 days = ____ pages per day

7. If y is proportional to x and $y = 10$ when $x = 2$, what is y when $x = 5$?

8. A rectangle 9 cm by 2 cm is enlarged by a scale factor of 8. What are the new dimensions?

9. Solve: $5/x = 25/35$

10. Two similar triangles have corresponding sides 4 and 16. If another side of the small triangle is 11, what is the matching side of the large triangle?

11. \$279.00 for 9 items = \$____ per item

12. If y is proportional to x and $y = 14$ when $x = 7$, what is y when $x = 10$?

13. A rectangle 8 cm by 6 cm is enlarged by a scale factor of 2. What are the new dimensions?

14. Solve: $7/1 = x/5$

15. Two similar triangles have corresponding sides 9 and 27. If another side of the small triangle is 12, what is the matching side of the large triangle?

16. 304 pages in 8 days = ____ pages per day

17. If y is proportional to x and $y = 54$ when $x = 9$, what is y when $x = 12$?

18. On a map, 11 cm represents 33 km. What distance does 3 cm represent?

19. Solve: $4/x = 16/24$

20. Two similar triangles have corresponding sides 6 and 30. If another side of the small triangle is 5, what is the matching side of the large triangle?

21. 350 miles in 7 hours = ____ miles per hour

22. $y = kx$ and $y = 72$ when $x = 9$. Find k .

23. A rectangle 8 cm by 7 cm is enlarged by a scale factor of 7. What are the new dimensions?

24. Solve: $x/11 = 12/44$

25. Two similar triangles have corresponding sides 4 and 16. If another side of the small triangle is 3, what is the matching side of the large triangle?

26. \$287.00 for 7 items = \$___ per item

27. $y = kx$ and $y = 54$ when $x = 6$. Find k .

28. On a map, 5 cm represents 25 km. What distance does 4 cm represent?

29. Solve: $12/2 = x/4$

30. Two similar triangles have corresponding sides 12 and 60. If another side of the small triangle is 7, what is the matching side of the large triangle?

Answer Key

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|-------------------|--------------------|--------------------|
| 1. 11 | 11. 31.00 | 21. 50 |
| 2. $k = 4$ | 12. $y = 20$ | 22. $k = 8$ |
| 3. 48 km | 13. 16 cm by 12 cm | 23. 56 cm by 49 cm |
| 4. $x = 5$ | 14. $x = 35$ | 24. $x = 3$ |
| 5. 36 | 15. 36 | 25. 12 |
| 6. 36 | 16. 38 | 26. 41.00 |
| 7. $y = 25$ | 17. $y = 72$ | 27. $k = 9$ |
| 8. 72 cm by 16 cm | 18. 9 km | 28. 20 km |
| 9. $x = 7$ | 19. $x = 6$ | 29. $x = 24$ |
| 10. 44 | 20. 25 | 30. 35 |