

MATEMÁTICAS -- 4º ESO OPCIÓN A -- IES LOS PACOS

Worksheet 2

3-12-2014

Name:

- 195 men working 10 hour a day can finish a job in 20 days. How many men employed to finish the job in 15 days if they work 13 hours a day.
- 10 men can lay a road 75 km long in 5 days. In how many days can 15 men lay a road 45 Km long?
- Nueve grifos abiertos durante 10 horas diarias han consumido una cantidad de agua por valor de 20 €. Averiguar el precio del vertido de 15 grifos abiertos 12 horas durante los mismos días.
- 5 obreros trabajando, trabajando 6 horas diarias construyen un muro en 2 días. ¿Cuánto tardarán 4 obreros trabajando 7 horas diarias?
- Si 8 obreros realizan en 9 días trabajando a razón de 6 horas por día un muro de 30 m. ¿Cuántos días necesitarán 10 obreros trabajando 8 horas diarias para realizar los 50 m de muro que faltan?
- Seis personas pueden vivir en un hotel durante 12 días por 792 €. ¿Cuánto costará el hotel de 15 personas durante ocho días?
- Con 12 botes conteniendo cada uno $\frac{1}{2}$ kg de pintura se han pintado 90 m de verja de 80 cm de altura. Calcular cuántos botes de 2 kg de pintura serán necesarios para pintar una verja similar de 120 cm de altura y 200 metros de longitud.
- When a bear hibernates, its heart rate drops to 10 beats per minute, which is 20% of its normal value. What is a bear's normal heart rate when not hibernating?
- Emily's family loves to work together in the garden. They have a preference for flowers, 60% of their plants are flowers and 40% are vegetables. They have 50 plants growing in the garden. How many vegetable plants do they have?
- David took a math test and got 35 correct and 10 incorrect answers. What was the percentage of correct answers? (Round to the nearest hundredth)
- A student earned a grade of 80% on a math test that had 20 problems. How many problems on this test did the student answer correctly?
- There are 36 carpenters in a crew. On a certain day, 29 were present. What percent showed up for work? (round to the nearest tenth)
- Unas acciones que valían 1000 € suben el 60 %. Después, vuelven a subir el 25 %. ¿Cuál es el precio total después de las subidas?
- A metal bar weighs 8.15 kg. 93% of the bar is silver. How many grams of silver are in the bar?
- A student answered 84 problems on a test correctly and received a grade 80%. How many problems were on the test, if all the problems were worth the same number of points?
- Pamela bought an electric drill at 85% of the regular price. She paid \$32.89 for the drill. What was the regular price?
- Una guitarra de 800 € sube el 50 %. Después, baja el 50 %. ¿Queda como estaba?
- Ben earns \$12,800 a year. About 15% is taken out for taxes. How much is taken out for taxes?
- At a sale, shirts were sold for \$15 each. This price was 80% of their original price. What was the original price?
- There are 32 students in a class. Nine of those students are women. What percent are men?
- El precio de una enciclopedia, 520 €, primero sube un 10 %, después sube otro 25 % y, finalmente, baja un 30 %. a) ¿Cuál es el precio final? b) ¿Cuál es el índice de variación total? c) ¿A qué porcentaje de aumento o de disminución corresponde?
- The Royals basketball team played 75 games and won 55 of them. What percent of the games did they lose?

23. Un abuelo reparte 450 € entre sus tres nietos de 8, 12 y 16 años de edad; proporcionalmente a sus edades. ¿Cuánto corresponde a cada uno?
24. Se asocian tres individuos aportando 5000, 7500 y 9000 €. Al cabo de un año han ganado 6 450 €. ¿Qué cantidad corresponde a cada uno si hacen un reparto directamente proporcional a los capitales aportados?
25. Se reparte dinero en proporción a 5, 10 y 13; al menor le corresponden 2500 €. ¿Cuánto corresponde a los otros dos?
26. Tres hermanos ayudan al mantenimiento familiar entregando anualmente 5900 €. Si sus edades son de 20, 24 y 32 años y las aportaciones son inversamente proporcionales a la edad, ¿cuánto aporta cada uno?
27. Repartir 420 €, entre tres niños en partes inversamente proporcionales a sus edades, que son 3, 5 y 6.
28. Carine deposits 1000€ into a special bank account which pays a simple interest annual rate of 7% for 3 years. How much will be in her account at the end of the investment term?
29. Sarah borrows 5000€ from her neighbour at an agreed simple interest rate of 12,5% annual. She will pay back the loan in one lump sum at the end of 2 years. How much will she have to pay her neighbour?
30. Mary gets 210€ of simple interest at the end of the 3rd year of investment. If the bank gave her an annual rate of 7%, what is the capital that Mary put at the beginning?
31. At what simple interest rate should Fritha invest if she wants to grow 2500€ to 4000€ in 5 years?
32. Gregory deposits 30000€ into a bank account that pays a simple interest rate of 5% annual. For how many years must he invest to generate 45000€?
33. ¿Durante cuánto tiempo ha de imponerse un capital de 25 000 € al 5% para que se convierta en 30.000 €?
34. You invest 1000\$ for 3 years and get 10% interest compounded at the end of each year. How much do you receive at the end?

SOLUTIONS

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|------------------------|--|
| 1. 200 men | 18. \$1920 |
| 2. 2 days | 19. \$18.75 |
| 3. 40 € | 20. 71.87% |
| 4. 2.14 días | 21. a) 500.50€ b) 0.9625 c) Bajada 3.75% |
| 5. 9 días | 22. 26.67% |
| 6. 1320 € | 23. 100 €, 150 €, 200 € |
| 7. 10 botes | 24. 1500 €, 2250 €, 2700 € |
| 8. 50 beats per minute | 25. 5000 €, 6500 € |
| 9. 20 vegetable plants | 26. 2400 €, 2000 €, 1500 € |
| 10. 77.78 % | 27. 200 €, 120 €, 100 € |
| 11. 16 problems | 28. 1210 € |
| 12. 80.6 % | 29. 6250 € |
| 13. 2000€ | 30. 1000 € |
| 14. 7579.5 gr | 31. 12% |
| 15. 105 problems | 32. 10 years |
| 16. \$38.69 | 33. 4 años |
| 17. No | 34. \$1331 |