

5.6 Puzzle Time

What Question Can You Never Answer Yes To?

Write the letter of each answer in the box containing the exercise number.

Find the interest earned.

1. \$500 at 4% for 3 years
 D. \$50 **E. \$60** F. \$100 **A. \$420** B. \$240 C. \$400
2. \$1200 at 7% for 5 years
3. \$750 at 6% for 18 months
 T. \$58.50 **U. \$67.50** V. \$56.75 *change to years!*
4. \$1500 at 8.5% for 6 months
 J. \$62.50 K. \$65.50 **L. \$63.75** *change to years!*

Find the annual interest rate.

5. $I = \$200, P = \$1000, t = 4$ years
E. 5% F. 6% G. 7% M. 1.5% N. 2.25% **O. 2.5%**
6. $I = \$30, P = \$600, t = 2$ years
7. $I = \$150, P = \$2,500, t = 9$ months
 R. 6% **S. 8%** T. 9%
8. $I = \$75, P = \$800, t = 15$ months
 D. 6.5% **E. 7.5%** F. 8.5%

Find the amount of time.

9. $I = \$144, P = \$400, r = 6\%$
 P. 3 years Q. 4 years **R. 6 years**
10. $I = \$236.25, P = \$750, r = 4.5\%$
 N. 3 years O. 5 years **P. 7 years**
11. $I = \$87.5, P = \$3500, r = 5\%$
 W. 3 years X. 3 months **Y. 6 months**
12. $I = \$108.75, P = \$2000, r = 7.25\%$
A. 9 months B. 6 months C. 3 months

2	9	5		11	6	3		12	7	4	1	8	10
A	R	E		Y	O	U		A	S	L	E	E	P

$$I = Prt$$

5.6 Puzzle
Time

$$\begin{aligned} 1. \quad I &= Prt \\ &= 500 \cdot 0.04 \cdot 3 \\ I &= 60 \end{aligned}$$

$$\begin{aligned} 2. \quad I &= 1200 \cdot 0.07 \cdot 5 \\ I &= 420 \end{aligned}$$

$$\begin{aligned} 3. \quad I &= 750 \cdot 0.06 \cdot 1.5 \\ I &= 67.50 \end{aligned}$$

$$\begin{aligned} 4. \quad I &= 1500 \cdot 0.085 \cdot 0.5 \\ I &= 63.75 \end{aligned}$$

$$\begin{aligned} 5. \quad I &= Prt \\ 200 &= 1000 \cdot r \cdot 4 \\ 200 &= 4000 \cdot r \\ \div 4000 & \\ 0.05 &= r \quad r = 5\% \end{aligned}$$

$$\begin{aligned} 8. \quad 75 &= 800 \cdot r \cdot 1.25 \\ 75 &= 1000 \cdot r \\ \div 1000 & \\ 0.075 &= r \quad 7.5\% \end{aligned}$$

$$\begin{aligned} 6. \quad I &= Prt \\ 30 &= 600 \cdot r \cdot 2 \\ 30 &= 1200r \\ \div 1200 & \\ 0.025 &= r \quad r = 2.5\% \end{aligned}$$

$$\begin{aligned} 7. \quad I &= Prt \\ 150 &= 2500 \cdot r \cdot 0.75 \\ 150 &= 1875 \cdot r \\ \div 1875 & \\ 0.08 &= r \quad r = 8\% \end{aligned}$$

$$9. \quad 144 = 400 \cdot 0.06 \cdot t$$

$$144 = 24 \cdot t$$

$$\div 24$$

$$6 = t$$

years

$$10. \quad 236.25 = 750 \cdot 0.045 \cdot t$$

$$236.25 = 33.75 \cdot t$$

$$\div 33.75$$

$$7 = t$$

$$11. \quad 87.5 = 3500 \cdot 0.05 \cdot t$$

$$87.5 = 175 \cdot t$$

$$\div 175$$

$$0.5 = t \quad \text{6 months}$$

years

$$12. \quad 108.75 = 2000 \cdot 0.0725 \cdot t$$

$$108.75 = 145 \cdot t$$

$$0.75 = t \quad \text{9 months}$$