



Variables and expressions

Grade 5 Pre-Algebra Worksheet

Write an expression to answer each question. State what the variable is. The first one is done for you as an example. (Variables may vary)

	<u>Expression</u>	<u>Variable</u>
<i>John scored 3 more points than James. How many points did John score?</i>	$p + 3$	$p = \text{number of points James scored}$
1. What is the distance in kilometers a car travels in n hours if it moves at a rate of 50km per hour?	_____	_____
2. Jenny gave a \$20 bill to the cashier to buy 5 packs of milk powder for \$ m each. How much will her change be?	_____	_____
3. Find the number of weeks in t days.	_____	_____
4. Rey bought a refrigerator with a down payment of \$200 plus \$ r each month for 6 monthly payments. How much did he spend for the refrigerator?	_____	_____
5. Arvin paid \$20 for a white t-shirt after receiving a discount of \$ d . How much is the original price of the white shirt?	_____	_____
6. The vacation house manager charges guests a flat rate of \$75 for 24 hours plus an additional \$10 for every extra hour. If a guest extended for e hours, how much will the guest have to pay?	_____	_____
7. A gym charges its clients a one-time membership fee of \$48 and \$ b per month. How much will a new client pay for 10 months?	_____	_____
8. After y years, Patty will be 26 years old. How old is Patty now?	_____	_____
9. Tim is 4 years less than three times the age of Ariel. How old is Tim?	_____	_____
10. If the width of a rectangle is 7 centimeters shorter than three times its length, how wide is its width?	_____	_____



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Write an expression to answer each question. State what the variable is. The first one is done for you as an example. (Variables may vary)

	<u>Expression</u>	<u>Variable</u>
<i>John scored 3 more points than James. How many points did John score?</i>	$p + 3$	p = number of points James scored
1. What is the distance in kilometers a car travels in n hours if it moves at a rate of 50km per hour?	<u>$50n$</u>	n = number of hours of travelling
2. Jenny gave a \$20 bill to the cashier to buy 5 packs of milk powder for \$ m each. How much will her change be?	<u>$20 - 5m$</u>	m = cost of each pack of milk powder
3. Find the number of weeks in t days.	<u>$\frac{t}{7}$</u>	t = number of days
4. Rey bought a refrigerator with a down payment of \$200 plus \$ r each month for 6 monthly payments. How much did he spend for the refrigerator?	<u>$200 + 6r$</u>	r = monthly payment
5. Arvin paid \$20 for a white t-shirt after receiving a discount of \$ d . How much is the original price of the white shirt?	<u>$20 + d$</u>	d = amount of discount
6. The vacation house manager charges guests a flat rate of \$75 for 24 hours plus an additional \$10 for every extra hour. If a guest extended for e hours, how much will the guest have to pay?	<u>$\\$75 + 10e$</u>	e = number of hours extension
7. A gym charges its clients a one-time membership fee of \$48 and \$ b per month. How much will a new client pay for 10 months?	<u>$48 + 10b$</u>	b = amount to pay each month
8. After y years, Patty will be 26 years old. How old is Patty now??	<u>$26 - y$</u>	y = number of years
9. Tim is 4 years less than three times the age of Ariel. How old is Tim?	<u>$3a - 4$</u>	a = age of Ariel
10. If the width of a rectangle is 7 centimeters shorter than three times its length, how wide is its width?	<u>$3l - 7$</u>	l = length of the rectangle