

Name: _____

Sec. 1.3: Write Expressions

Certain key words signal

- Addition:
- Subtraction:
- Multiplication:
- Division:

Pay careful attention to

Just as expressions can contain

Verbal model:

Mathematical model:

Rate:

Unit rate:

Examples

Translate the verbal phrase into an expression:

1. 6 more than a number y
2. The difference of 8 and a number x
3. The product of a number u and 5
4. One-half of a number k
5. 9 less than the cube of a number r

Write an expression for the situation

6. Dollars needed for m movie tickets if each ticket costs \$6
7. Number of days in y years
8. Amount of money you would spend for a pair of pants that cost p dollars and a shirt that costs s dollars

Find the unit rate in feet per second:

9. $(6 \text{ ft}) / (5 \text{ min})$
10. $(4 \text{ yd}) / (1 \text{ hr})$

Sec. 1.3 Practice Problems

| | | |
|--|--|--|
| Translate the verbal phrase into an expression: | | |
| 1) 7 less than a number x | 2) 16 more than a number w | 3) 4 more than twice a number k |
| 4) 6 times 4 more than a number q | 5) 2 less than the square of a number t | 6) the quotient of three times a number y and 8 |
| 7) the difference of 50 and the square of a number h | 8) 4 less than the quotient of a number x and 9 | 9) 3 more than the product of 5 and 2 less than a number n |
| Write an expression for the situation. | | |
| 10) Each person's share of \$100 if p people share it equally | 11) Number of quarters left in your piggy bank if you started with 40 quarters and have removed q quarters (without adding any more to the piggy bank) | |
| Find the unit rate in meters per minute. | | |
| 12) $(20 \text{ m}) / (50 \text{ min})$ | 13) $(40 \text{ m}) / (30 \text{ sec})$ | 14) $(3 \text{ km}) / (5 \text{ hr})$ |
| Problem Solving: | | |
| 15) A phone company charges \$.12 per minute to call a certain country. It also charges a \$.20 connection fee (once per call, regardless of the duration of the call). Write an expression that describes the total cost of a call that lasts m minutes, and then calculate the total cost of a 30-minute call. | | |

Solutions

Sec. 1.3 Practice Problems

| Translate the verbal phrase into an expression: | | |
|--|--|--|
| 1) 7 less than a number x $x - 7$ | 2) 16 more than a number w $w + 16$ | 3) 4 more than twice a number k $2k + 4$ |
| 4) 6 times 4 more than a number q $6(q + 4)$ | 5) 2 less than the square of a number t $t^2 - 2$ | 6) the quotient of three times a number y and 8 $\frac{3y}{8}$ |
| 7) the difference of 50 and the square of a number h $50 - h^2$ | 8) 4 less than the quotient of a number x and 9 $\frac{x}{9} - 4$ | 9) 3 more than the product of 5 and 2 less than a number n $5(n - 2) + 3$ |
| Write an expression for the situation. | | |
| 10) Each person's share of \$100 if p people share it equally $\frac{100}{p}$ | 11) Number of quarters left in your piggy bank if you started with 40 quarters and have removed q quarters (without adding any more to the piggy bank) $40 - q$ | |
| Find the unit rate in meters per minute. | | |
| 12) (20 m) / (50 min) $.4 \text{ m/min}$ | 13) (40 m) / (30 sec) 80 m/min | 14) (3 km) / (5 hr) 10 m/min |
| Problem Solving: | | |
| 15) A phone company charges \$.12 per minute to call a certain country. It also charges a \$.20 connection fee (once per call, regardless of the duration of the call). Write an expression that describes the total cost of a call that lasts m minutes, and then calculate the total cost of a 30-minute call. $.12m + .20$ 30 min: \$3.80 | | |