

1. Unusual Animals

Four animals (a cat, a dog, an elephant, and a tiger) are all of normal size but are still somewhat unusual. Each has a dominant color (green, purple, red, and rust), and the hair or hide of each has an overall pattern (checkered, plaid, polka-dotted, and striped). Their names are Fido, King, Princess, and Tiny. They live in Africa, Australia, Europe, and India. Their ages are 1, 3, 6, and 20 years.

From the clues below, see if you can match up everything.

1. The product of the ages of the elephant and the African animal is 20.
2. The green animal is often thought of as being the same kind of animal as King, but on a larger scale.
3. The sum of the ages of the purple animal, the cat, and the checkered animal is 10.
4. The sum of the ages of the cat and the plaid animal is 23.
5. The sum of the ages of the tiger, Fido, and the animal from Africa is 27.
6. The product of the ages of Tiny and the striped animal is 6.
7. The sum of the ages of Fido, the rust-colored animal, and the European animal is 29.
8. The polka-dotted animal liked its own color, but it thought the Indian animal's color ridiculous.

Chart for Problem 1

	green	purple	red	rust	checkered	plaid	polka-dotted	striped	Fido	King	Princess	Tiny	Africa	Australia	Europe	India	1	3	6	20
cat																				
dog																				
elephant																				
tiger																				
checkered																				
plaid																				
polka-dotted																				
striped																				
Fido																				
King																				
Princess																				
Tiny																				
Africa																				
Australia																				
Europe																				
India																				
1																				
3																				
6																				
20																				

ANSWERS

ANIMAL	COLOR	PATTERN	NAME	ORIGIN	AGE
cat	rust	polka-dotted ¹	King	Australia	3
dog	purple	striped	Princess	Africa	1
elephant	red	plaid	Fido	India	20
tiger	green	checkered	Tiny	Europe	6

The ages of the tiger, Fido, and the African animal are 1, 6, and 20 (5), and the ages of the elephant and the African animal are 1 and 20 (1). So we have four descriptions of animals (tiger, Fido, African, elephant) but only three ages, so one of the descriptions is a duplication. The African animal is included in both clues 1 and 5, so none of the other three descriptions is a duplication of this one. Then we are left with three descriptions for two animals—tiger, Fido, elephant. The tiger isn't Fido (5) or the elephant, so Fido is the elephant. Then the ages of the tiger, the elephant (Fido) and the African animal are 1, 6, and 20 (5), while the ages of the elephant and the African animal are 1 and 20 (1). So the tiger's age is 6, and the tiger is green (2).

The cat's age is not 1 or 6 (4) or 20 (3), so it is 3, and its name is King (2).

The purple animal and the checkered animal are 1 and 6 (3). The purple animal is not 6 (green tiger), so it is 1, and the checkered animal is 6. Tiny and the striped animal are 1 and 6 (6). The striped animal is not 6 (checkered), so Tiny is 6, and the striped animal is 1. This leaves Princess to be the dog's name.

The cat's pattern is not striped (age 1) or plaid (4), so it is polka-dotted.

The ages of Fido, the rust-colored animal, and the European animal are 3, 6, and 20 (7). The 6-year-old is not Fido (Tiny) or rust-colored (green), so it is the European animal. Fido, who is the elephant, is not 3 (cat), so Fido is 20, and the rust-colored animal is 3. Then Princess, the dog, is 1 year old, and the elephant is red plaid.

The African animal is 1 year old (1, elephant is 20). The cat is not from India (8, polka-dotted), so it is from Australia, and the elephant is from India.