Unit 3 Lesson 11: Percentages and Double Number Lines
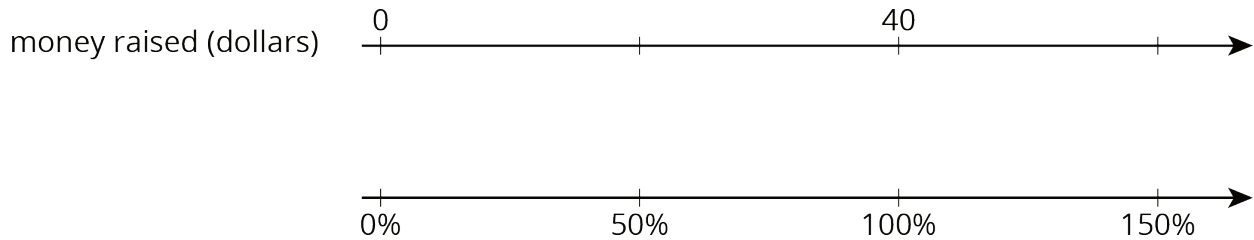
1 Fundraising Goal (Warm up)

Student Task Statement

Each of three friends—Lin, Jada, and Andre—had the goal of raising $40. How much money did each person raise? Be prepared to explain your reasoning.

1. Lin raised 100% of her goal.

2. Jada raised 50% of her goal.
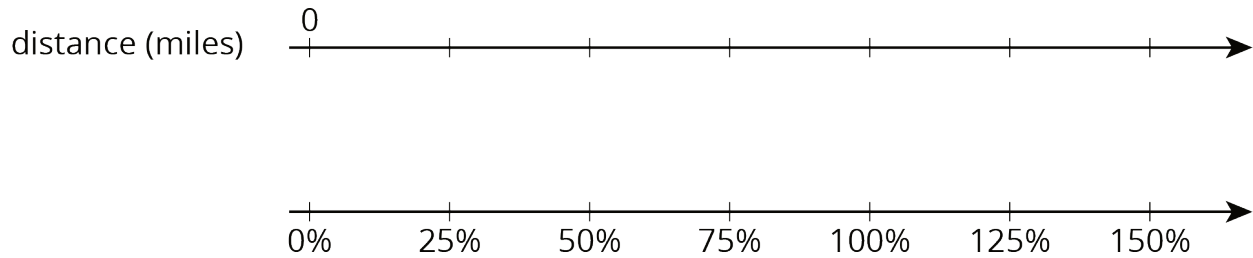
3. Andre raised 150% of his goal.

Activity Synthesis

money raised (dollars)

2 Three-Day Biking Trip

Student Task Statement

Elena biked 8 miles on Saturday. Use the double number line to answer the questions. Be prepared to explain your reasoning.

distance (miles)

0

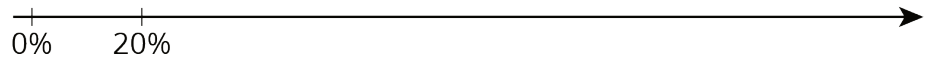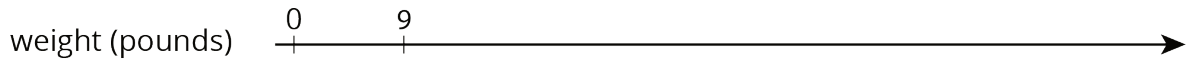0%　25%　50%　75%　100%　125%　150%

1. What is 100% of her Saturday distance?

2. On Sunday, she biked 75% of her Saturday distance. How far was that?

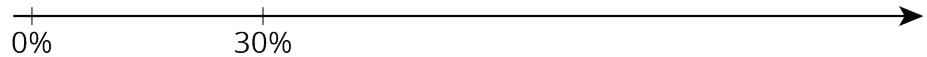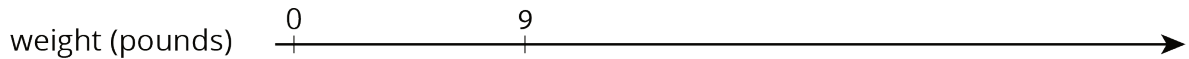3. On Monday, she biked 125% of her Saturday distance. How far was that?

3 Puppies Grow Up

Student Task Statement

1. Jada has a new puppy that weighs 9 pounds. The vet says that the puppy is now at about 20% of its adult weight. What will be the adult weight of the puppy?

weight (pounds)

```
0       9
+-------+----------------------------------------------->
```

```
+-------+----------------------------------------------->
0%      20%
```
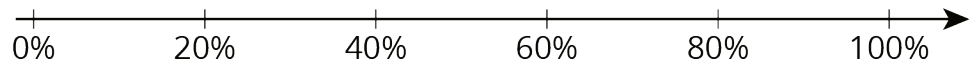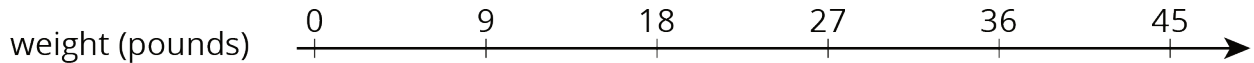
2. Andre also has a puppy that weighs 9 pounds. The vet says that this puppy is now at about 30% of its adult weight. What will be the adult weight of Andre's puppy?

weight (pounds)

```
0                   9
+-------------------+--------------------------------->
```

```
+-------------------+--------------------------------->
0%                  30%
```

3. What is the same about Jada and Andre's puppies? What is different?

Activity Synthesis

weight (pounds)

```
0        9       18       27       36       45
+--------+--------+--------+--------+--------+-------->
```

```
+--------+--------+--------+--------+--------+-------->
0%       20%      40%      60%      80%      100%
```

weight (pounds)	percentage
9	20
45	100

•5 (left)   •5 (right)

weight (pounds)	percentage
9	30
3	10
30	100

$\cdot \frac{1}{3}$

$\cdot 10$

$\cdot \frac{1}{3}$

$\cdot 10$

Images for Activity Synthesis

weight (pounds)

| 0 | | 50 | |

$\longrightarrow$

| 0% | | 100% | |

$\longrightarrow$