

How Much Concrete Do I Need For My Project?

PROCESS:

Calculating the amount of concrete you require for your project can be a very confusing exercise.

Pre-mix concrete comes in 60 lb. and 80 lb. Bags. A 60 lb. bag provides 0.45 cubic feet of cured concrete and an 80 lb. bag provides 0.6 cubic feet of cured concrete.

If you have mixed concrete delivered, it is sold by the whole yard (which is a cubic yard = 27 cubic feet). The average price of a yard of concrete is approximately \$100. A concrete truck can typically carry a maximum of 10 yards of concrete per delivery.

FORMULAS:

The following are the formulas to calculate how much concrete you will require for a square or rectangular shaped pour:

$VOLUME = L$ (length in feet) \times W (width in feet) \times T (thickness as fraction or inches/12)
= cubic feet of concrete (CF)

Number of bags of concrete needed

$CF \div 0.45 =$ number of 60 lb. bags

$CF \div 0.6 =$ number of 80 lb. bags

Number of cubic yards of concrete needed

$CF \div 27 =$ cubic yards (always round up as a whole yard of concrete needs to be ordered)

$L =$ Length in feet

$W =$ Width in feet

$T =$ Thickness in inches divided by 12

$CF =$ Cubic feet of concrete

EXAMPLE:

A patio 10' long by 8' wide by 6" thick

$10 \times 8 \times (6 \div 12) = 40$ cubic feet of concrete

$40 \div 0.45 = 89$ (88.8) 60 lb bags of concrete

$40 \div 0.6 = 67$ (66.7) 80 lb. bags of concrete

$40 \div 27 = 1.5$ (2) cubic yards of concrete



NAME _____

PERIOD _____

1. How many cubic yards of concrete do you need for a driveway that is 72' long by 30' wide by 4" thick?
2. How many 60lb bags of concrete do you need for a side walk that is 8' long by 3' wide by 4" thick?
3. How many 60lb bags of concrete are needed to pour the foundation for a shed that is 8' long by 10' wide by 4" thick?
4. How much would the concrete cost to pour a garage floor that is 32' long by 24' wide by 6" thick?
5. How many cubic yards of concrete do you need for a driveway that is 42' long by 20' wide by 5" thick with a sidewalk to the house that is 12' long by 3' wide by 4" thick? How many trucks would be needed to deliver this amount of concrete? How much would the concrete bill be for this order?