Task-Based Activities

QUILL Learning Network

Task Title: Use Roofing Estimator

OALCF Cover Sheet – Learner Copy

Learner Name: _____

Date Started: _____

Date Completed: _____

Successful Completion: Yes ☐ No ☐

Goal Path: Employment ☐ Apprenticeship ☐

Secondary School ☐ Post Secondary ☐ Independence ☐

Task Description:

Use a roofing estimator to find information to calculate the amount of roofing supplies to order.

Main Competency/Task Group/Level Indicator:

- Find and Use Information/Interpret documents/A2.3
- Use and Understand Numbers/Use measures/C3.3

Materials Required:

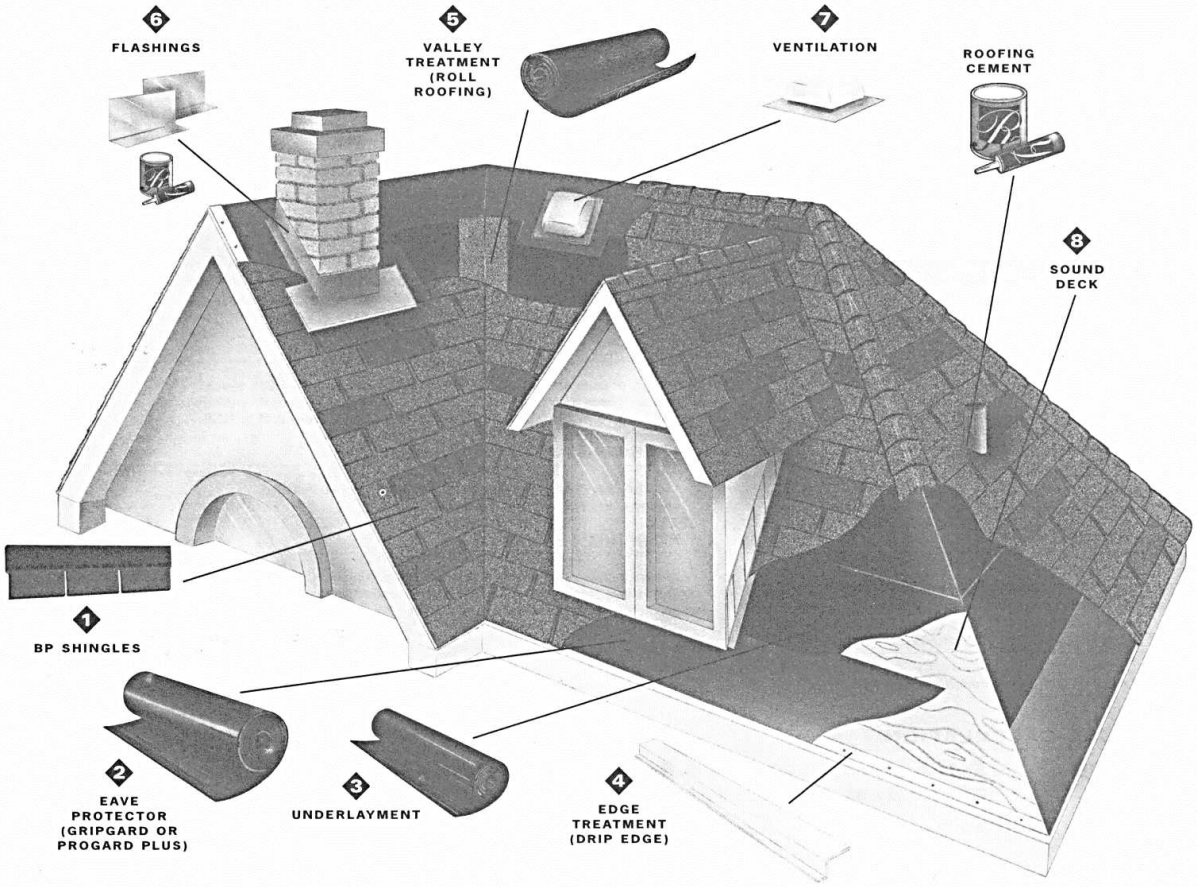
- Pen & Paper and/or digital device
- Calculator (optional)

Learner Information

A Roofing Estimator can be used to calculate the amount of roofing supplies to order. Scan the BP Quick Roofing Estimator.

BP QUICK ROOFING ESTIMATOR

THE ELEMENTS OF A PREMIUM ROOF SYSTEM



1 BP SHINGLES
Shingles determine the ultimate longevity of the roof.

2 EAVE PROTECTOR
Waterproofing Membrane (Gripgard or Progard Plus) provides nececessary protection against winter freeze / thaw cycles.

3 UNDERLAYMENT
Sheds water that may be driven under the shingles by high winds.

4 EDGE TREATMENT
For efficient water shedding at the roof's edge.

5 VALLEY TREATMENT
Stops damage due to snow and ice build-up.

6 FLASHINGS
Protect areas vulnerable to leaks: skylights, vents, chimneys, etc.

7 VENTILATION
The building code requires all roof structures be provided with proper ventilation.

8 SOUND DECK
To have a solid foundation, a solid deck is essential.

HELPFUL TOOLS AND MATERIALS CHECK LIST

- ☐ 25' Tape measure
- ☐ Extension Ladder
- ☐ Knee pads
- ☐ Chalk Line
- ☐ Tin Snips
- ☐ Shingle Knife
- ☐ Hammer Tacker
- ☐ Regular Hammer
- ☐ Caulking Gun
- ☐ Airgun
- ☐ Nail Apron
- ☐ Roofing Nails
- ☐ Eavestroughing
- ☐ Gloves

EMCO BUILDING PRODUCTS CORP.

1 800 567-2726 Web sites: **www.emcobp.com** **www.dreamroofs.com**

E A S T

ARCHITECTURAL SHINGLES

	COVERAGE (SQ. FT.) / Bundle:
ECLIPSE	25
EVEREST FIBERGLASS	33.3
HARMONY FIBERGLASS	33.3
EUROPA	32.3
ROOFMASTER	32.3
MIRAGE	32.3

3-TAB SHINGLES

	COVERAGE (SQ. FT.) / Bundle:
TRADITION	32.3
YUKON FIBERGLASS	32.3
RAMPART	32.3
DAKOTA FIBERGLASS	32.3
CITADEL	32.3
WEATHER-TITE	32.3

INTERLOCKING SHINGLES

	COVERAGE (SQ. FT.) / Bundle:
TITE-LOK	32.3

NOTE: *Valleys may require additional material.*

MATERIALS ESTIMATOR — COST ESTIMATOR

EAVE PROTECTOR

no. of rolls x cost per roll = $

HIP ROOF: Add (2 x A) + (2 x B) = sq. ft. ÷ area of roll = no. of rolls required.

GABLE ROOF: (2 x A) ÷ area of roll = no. of rolls required. Eave protection should be laid a minimum of 12" beyond the inside of the exterior wall line.

DRIP EDGE

no. of pce x cost per pce = $

HIP ROOF: Add (2 x A) + (2 x B) and divide by length of drip edge for total number of lengths required.

GABLE ROOF: Add (2 x A) + (4 x B) and divide by length of drip edge for total number of lengths required.

UNDERLAYMENT

no. of rolls x cost per roll = $

Use the square footage of your roof determined in the shingle section below.
Substract the square footage used for the Eave Protector.
Divide by area of underlayment roll.

VENTS

no. of pce x cost per pce = $

1 sq. ft. of open ventilation is required for every 300 sq. ft. of attic space, on roof slopes greater than 4:12 to be split evenly between roof ventilation and soffit ventilation (1/150 for cathedral ceilings and slopes 2:12 to 4:12).

FLASHINGS

no. of pce x cost per pce = $

Vinyl or metal (galvanized steel, sheet copper) shall be installed around chimneys, vents, soil stacks, etc.

ROOFING CEMENT

no. of units x cost per unit = $

Should be used for chimney flashing, soil stack flashing, exposed nails on vents, and valleys. It is essential that cement be applied with caution and always according to the instructions on the label.

TOTAL MATERIAL COST $ $

SHINGLE CALCULATION

no. of bdl. x cost per bdl. = $

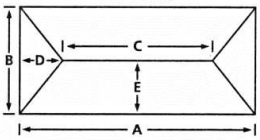
HIP ROOF: Add [(A + C) ÷ 2] x E = sq. ft. ÷ no. sq. ft./bdl.* = no. of bdl. for each side.
0.5 x B x D = sq. ft. ÷ no. sq. ft./bdl.* = no. of bdl. for each end.

GABLE ROOF: A x B = sq. ft. ÷ no. sq. ft./bdl.* = no. of bdl. for each side.

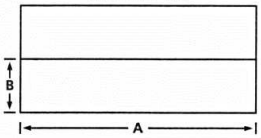
To allow for starter strip, hips, ridges and waste add 15% to Hip roof type, and 10% for Gable roof type.

see above for coverage / bundle

HIP STYLE



GABLE STYLE



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Work Sheet

Task 1: What is the purpose of Valley Treatment?

Answer:

Task 2: How many types of 3-Tab Shingles are listed?

Answer:

Task 3: Locate the Shingle Calculation section on the Estimator. Using the information in the table below, calculate the number of square feet of 1 side of the roof represented in this table.

Hip Roof/house Part A	**32 ft**
Part B	**18 ft**
Part C	**14 ft**
Part D	**10 ft**
Part E	**10 ft**

Answer:

Task 4: Using your calculation in Task 3, calculate how many bundles of 3-Tab shingles will be needed.

Answer:

Task 5: If Citadel shingles cost $16.97/bundle, calculate the cost of 11 bundles.

Answer: